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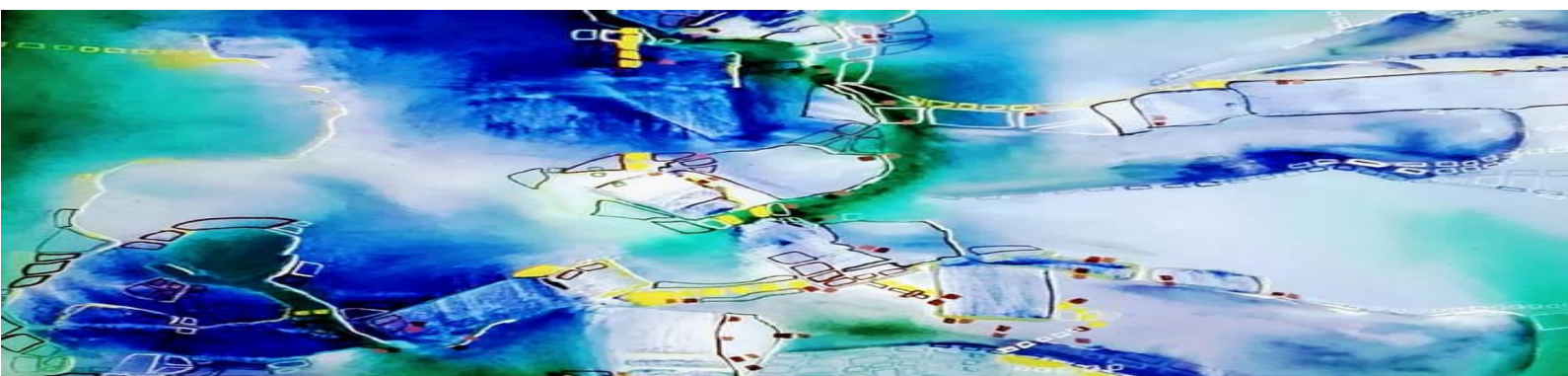
EDITORS

Konrad Reschke, Evelin Witruk, Edgar Galindo

Adelinda Candeias & Markus Stueck

Psychology in Education and Health V

Proceedings of the
**5th Leipzig-Evora Scientific Meeting in Psychology -
6th and 7th September 2021 -
Leipzig (Germany)**



EDITORS

Konrad Reschke (Coord.), Evelin Witruk, Edgar Galindo, Adelinda Candeias & Marcus Stück

Psychology in Education and Health

Proceedings of the

5th Leipzig-Évora Scientific Meeting in Psychology

6th - 7th September, 2021

Leipzig | Germany

Bibliographic information published by the

Psychology in Education and Health

Proceedings of the 5th Leipzig-Évora Scientific Meeting in Psychology

6th -7th .October, 2021 | Leipzig

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Printed in Germany in 2022

Editors:

Konrad Reschke, Evelin Witruk, .Edgar Galindo, Adelinda Candeias & Marcus Stück

ISBN:

CONTENTS

- 5 Foreword**
- 8 Wilhelm Wundt's life and work with focus on Health Psychological aspects**
Konrad Reschke *University of Leipzig*
- 27 Historical Aspects of the Educational Psychology at the University of Leipzig**
Evelin Witruk *University of Leipzig*
- 34 Impact of covid 19 pandemic in psychological wellbeing of adults
- a biopsychosocial approach**
Adelinda Candeias *Universidade Évora*
- 36 Psychology of Disaster and Pandemics**
Edgar Galindo *Universidade Évora*
- 48 Post pandemic resiliency training – What are the most
important ingredients of a resilience training, which
strengthens the resistance forces in a post corona phase**
Konrad Reschke *University of Leipzig*
- 67 Health Clinic Adaptation During Covid 19 Pandemic: A Case Study
of A Small Frontline Clinic in Yogyakarta-Indonesia**
Dzikri Hijriarahma & Ami Zulaifah *Universitas Islam Indonesia*
- 79 Clinical and psychological peculiarities of bodily self-identity and self-
perception disorders in young individuals**
Irina Sokolova *Charkiv, UIPE Ukraina*
- 80 A driver improvement program for stressed drivers**
Udo Kranich & Konrad Reschke *University of Leipzig*
- 92 Mastering parenting stress optimistically: A positive psychology –
positive education intervention**
Franziska S. Stoeber *Leipzig*

- 98 Living with your Stress, mastering its management**
Asanka Bulathwatta *University of Peradeniya, Sri Lanka*
- 102 Mental Health in a Platform Context: How Mobile Applications can assist the Improvement of Mental Disorders with Special Consideration of the Individual Case of „ama mind“**
Alexandra Wodner *Leipzig*
- 111 The Psychology of the 4 directions and the Complete Science
Introduction into specific aspects of the Biocentric Health Theory**
Marcus Stueck *DPFA-Academy Work and Health Leipzig*
- 123 Modeling of the bio-psychological health assessment in Tehran pre-hospital emergency staff based on the theory of bio-centric health management**
Vahid Delshad *Iran, Teheran, University of Social Welfare and Rehabilitation*
- 125 Space adventure: Defend the planet!: A video game to support mathematics in children with special needs**
Lilia Marcelino & Conceição Costa *CICANT – Universidade Lusófona*
- 133 The perception of interparental conflict and school retention in a sample of students from professional courses**
Heldemerina Samutelela Pires & Luísa Grácio *University of Évora, Portugal*
- 143 Clinical Decision – making: applying experiential concepts to facilitate the inner process and its reflection in situations where decisions are to be made**
Heinz-Joachim Feuerstein, *Hochschule Kehl, University of Applied Sciences/Public Management, Kehl*
- 152 Program of the Conference** *Leipzig*

FOREWORD

The Department of Psychology of the University Leipzig and the Institute for Psychology of the University of Évora organized jointly the 5th Leipzig-Évora Scientific Meeting in Psychology, with the purpose of consolidating academic and scientific cooperation between both institutions, fostering mutual knowledge of scholars, scientists and students, broadening common scientific production and reinforcing institutional relations.

The meeting was a forum of scientific discussion and interchange of information on the current research fields of the participants.

During this scientific meeting, several papers on the application of Psychology in the fields were discussed. The meeting was a forum of scientific discussion and interchange of information on the current research fields of the participants.

This volume contains the main contributions presented by scholars from the University Leipzig (Germany), University of Madeira (Portugal), University of Évora, University of Yogyakarta (Indonesia), the IUPE Kiev (Ukraine) and the Catholic University of Angola (Angola) We welcome guest speakers from High school of Applied Sciences and from psychological practice.

Papers on the application of Psychology in the fields of health, well-being, education, child development and Clinical Psychology were discussed. The main areas of research and application in modern Psychology are here represented. One main focus was the COVID 19 pandemic and psychological approaches for the understanding, prevention and treatment of the psychological burdens.

The aim of this volume is to inform other scientists on the current developments of research on Psychology in our universities.

The Editors

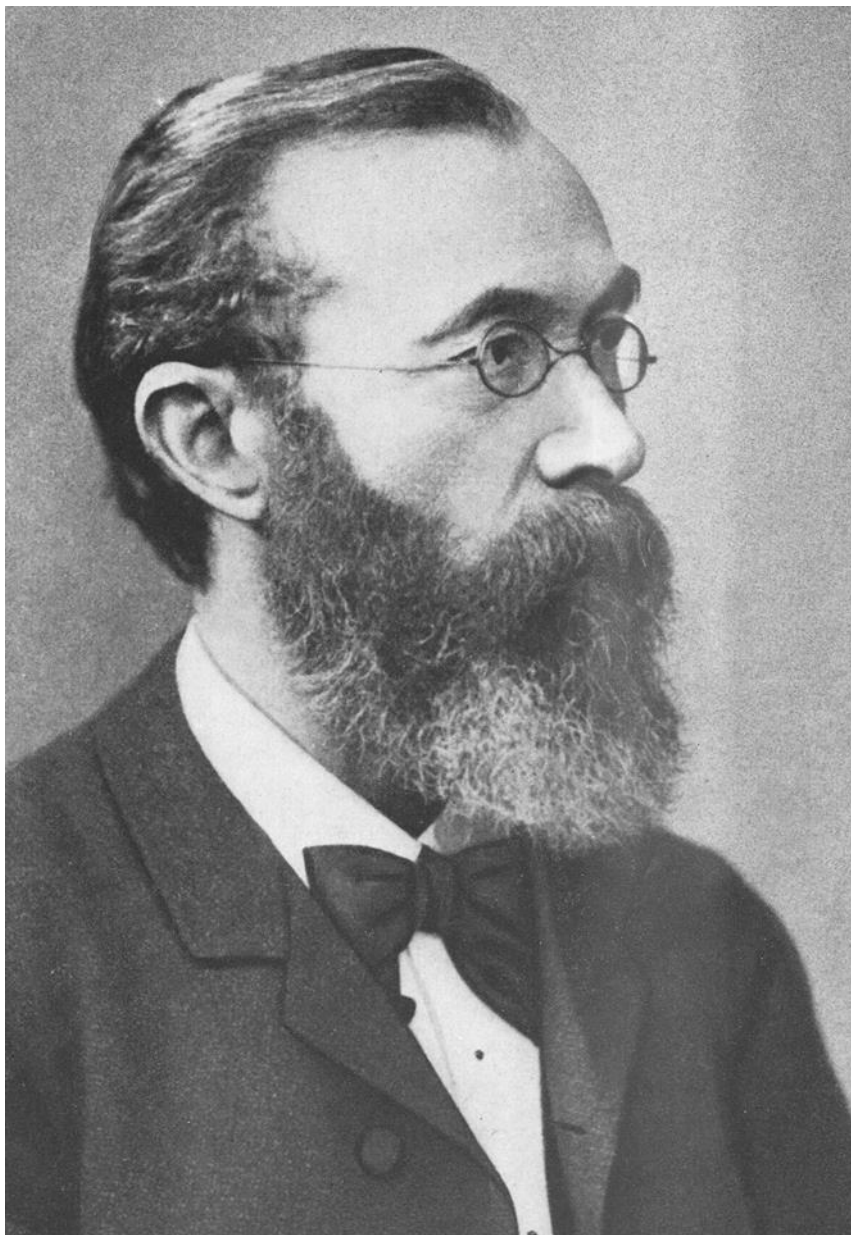
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Diving to the History of Psychology

Wundt's life and work with focus on Health Psychological aspects

Konrad Reschke

Konrad.reschke@web.de



Wilhelm Maximilian Wundt (1832 – 1920)

1. Introduction

In most first lessons of a Psychology course the name and work of one of the biggest German psychologists, Wilhelm Wundt, will be mentioned. That seems to be so all over the world. A lot is written about Wundt, his life and work and his influence on modern Psychology. But especially we at the Leipzig University have to save the tradition of the work of this founder of modern Psychology. Therefore a lot of research work was done in the past in order to analyze, review and assess the knowledge about Wundt. It is difficult to say and I cannot remember that anyone picked up the question, what is interesting from the Health Psychology point of view in the life and work of Wundt. On the occasion of the IVth Scientific Meeting of the University Leipzig and University Evora it was important for us to draw attention to this question within the framework of the Symposia "Diving in the history of Psychology at the Leipzig University". We would like to try to give answers to the above mentioned question. This article consists of three parts: First, I shall recall some dates from the life of Wundt.

Then, secondly, I'd like to stress some parts of his work, which are close connected with recent topics of Clinical and Health Psychology. Hereby, I have not only to stress the work of Wundt, but I should consider the work of his students and candidates studying for their doctorates, too.

And last but not least, thirdly, I have to return to his personal history and I shall pick up on some experiences and events of his life, which seem to have on one hand connections to Health Psychology or - on the other hand - describe events of his life under the health-psychological point of view.

2. Some important dates in W. Wundt's life

It is not easy to choose dates and events of such a long and very eventful life like Wundt's life. On the 16th of August 1832 Wilhelm Wundt was born in Neckarau near Mannheim as a son of a vicar. He finished grammar school in Heidelberg and the study of medicine in Tübingen, Heidelberg and Karlsruhe in 1855. But he wasn't always a person of such great intelligence and motivation. Like so many geniuses of this time and before he had to take some examinations more than once. Yet ten years later, in the year 1865, when he was only 24, he was able to finish the promotion for a doctor of medicine (Dr. Med.) with "summa cum laude". He gained his first impressions and experiences in the field of medicine in a women's Health department of the Heidelberg Klinikum, where he worked. From this time he reported some interesting

impressions about the role of a male physician in a woman's hospital. After research work under the leadership of Johannes Müller (Berlin) and Emile Raymond-Bois (Berlin), both were well known physiologists of his time, he could habilitate at the Faculty of Medicine at Heidelberg. This was in the year 1857. In the same year, he started as a private lecturer at this Faculty and from 1858 to 1863 he worked as an assistant of Herman von Helmholtz, one of the famous German physiologists of this time. In the year 1864 he was appointed as an extraordinary professor of Anthropology and Medical Psychology of the Medical Faculty of the Heidelberg University. Then, in the year 1875 he was appointed to a full professor of Philosophy at the Leipzig University. This was after a short stay at the Zürich University as a professor of Philosophy too.

In 1879 he founded the first psychological laboratory or Institute of Psychology in the world at the Leipzig University. It was a private Institute at this time. At Leipzig University Wundt has had his largest working period with teaching and researching in General and Applied Psychology. The number of pages published by Wundt is about 53,000 pages. So, the motivation and ambition of Wundt to contribute to the basics and foundation of a new science is most definitely visible. And, maybe a word of Vanerus will be understandable. He says: "It is important to get in front of the avalanche called the WUNDT's (literature) production" – in original words: *Es gilt, vor die Lawine, die die WUNDTsche Produktion heißt, zu kommen.*

Wundt received a lot of social and academic honoree posts. For a certain time he was the rector of the Leipzig University. He received several official honors and honors from his students too. One can say, his students honored him a great deal as some writings and documents show us. In 1917, when he was 84, he finished his teaching work. It is reported, that caused by illness of his eyes he couldn't see well in his last years. Therefore his daughter and other people had to accompany him on the way to and from his lessons at the university. In 1919, he bought a house in Großbothen near Leipzig for his daughter with whom he lived. It was in this house that Wundt died on 31. August 1920. His grave is on the Leipzig South Cemetery near the Monument of the Battle of Nations in Leipzig.

3. Look in the history of the University of Leipzig and their Psychological Institute

Leipzig's university was founded on December 2, 1409 and has throughout its history reflected the development of the city itself. It attracted eminent scholars and has a long tradition of

psychological thought and research (Meischner, 1986) established by such men as Magnus HUNDT (1449 - 1509), Christian THOMASIVS (1655 - 1728), Friedrich August CARUS (1770 - 1807) and August HEINROTH (1773 - 1843). Here, at Leipzig University worked both true founding fathers of psychology on a world scale, Gustav Theodor Fechner (1801 - 1887) and Wilhelm Wundt (1832 - 1920). And it was the latter who gave Leipzig its spearheading role by establishing the first-ever Psychological Institute in the year 1879. He thus institutionalized psychology which was during the 19th century emancipating itself as a science in Germany and beyond. Many of today's theories and methods originated from foundations laid during that period. Around the turn of the century, Leipzig grew into a full-fledged industrial city and centre of trade fairs as witnessed by large a number of magnificent buildings erected between 1880 and 1914. The university, too, was in its heyday as a focal point of scientific research and teaching. When the 500th anniversary of its foundation was celebrated in 1909, it had a proud record of producing a number of world-renowned scientists and possessing several excellent institutes. One of these, as mentioned above the first Psychological Laboratory founded by Wundt was accommodated at first in the "Trierianum" shown in Figure 1 and later in the old main university building (Figure 2).

Leipzig had become a genuine Mecca of teaching and research in psychology, and the ground plan of the new institute in the main building of the university in Figure 3 shows it to be well equipped for its time, with a number of experimental laboratories including a dark room for perception research and lecture rooms.

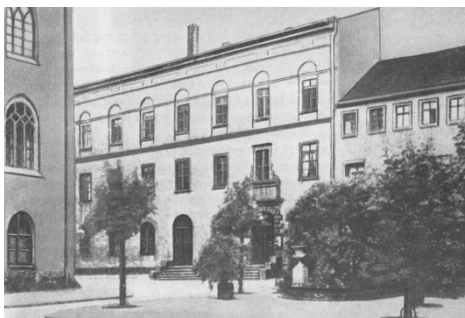


Figure 1: "Trierianum"



Figure 2: Old Leipzig University

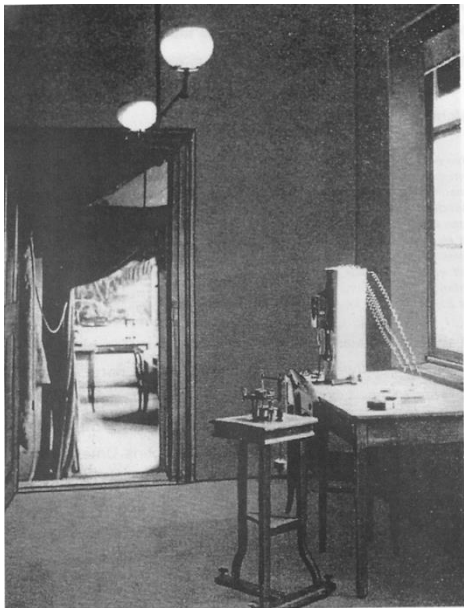


Abb.58 : Blick in die Arbeitsräume in der alten Leipziger Universität

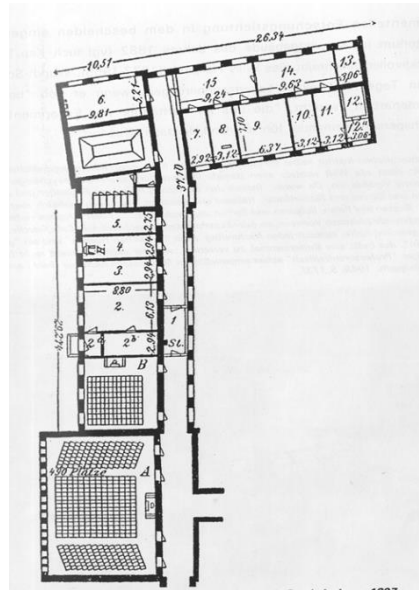


Abb.63 : Grundriß des Institutes für Experimentelle Psychologie um 1897
(Entnommen : W.Wundt, Psychologische Studien, 1910)

Figure 3: View of the rooms of the psychological laboratory and ground plan

During this time that Leipzig was a Mekka of Psychology, students from all over the world came to Leipzig in order to study Psychology and to attend his lectures. One of Wundt's classes with a particular appeal was the "Psychological Laboratory", an experimental seminar, the rising attendance of which is documented in table 1. Table 1 shows the number of students attending the psychological laboratory from 1896 to 1914. Figure 4 shows a list with the names of participants of the Psychological Laboratory organized and held by W. Wundt.

Table 1: Number of Participants of the Psychological Laboratory organized and held by W. Wundt & Wilhelm Wirth (UAL, Archive University of Leipzig Belegbögen)

Year	Number of participants of the Psychological Laboratory
1896	24
1896/ 1897	28
1898	24
1904/ 1905	29

1909/ 1910	42
1910	38
1911	45
1911/ 1912	45
1912	34
1912/ 1913	41
1913	36
1913/ 1914	40

This was obviously a new and attractive course at the time and drew many students, too, some more than once. Some students attended twice as "repetendres" and in most cases those have founded their own psychological laboratories after returning to their home countries (e.g. Tsai Yuan Pai in China). For more information about Tsai Yuan Pai see Reschke (2020). The Leipzig Institute for experimental psychology attracted many students and well-known scholars from all over the world. This can be seen from the attendance lists of Wundt's lectures one example is shown in Figure 4.

Figure 4: List of participants of the Psychological Laboratory organized and held by W. Wundt

Ludwig
Ludwig

Sommer-Semester 18 55

Belegbogen

für die Privat-Vorlesung des Herrn *das psychophysikalische Seminar*
des Herrn Prof. Dr. W. Wundt.

Honorar: — Mark — Pf.
Stuhlgeld: — Mark — Pf.
Auditorien-
geld: — Mark 40-Pf.

Diese Liste liegt im Hörtische
aus bis zum
Fenster.

No. 2 Mark — Pf. für die Gebühren

Lehr- buch No.	Name.	Vorname.	Studium.	Geburtsort.	Wohnung.	in reptende bei Anwesen Dauer.
X 1	Condit	Johann	Med. phil.	Leipzig	Herrnhutstr. 19	19.
2	Wolfe	H. K.	Med. phil.	Blomberg	25. Bismarckstr.	"
3	Rechtner	H. K.	Med. phil.	Leipzig	2. Bismarckstr.	"
4	Pajani	Theodor	Philos.	Ungarn	Herrnhutstr. 25.	"
5	Thor	Ignaz	Psycholog.	Weyde	Herrnhutstr. 52.	49.
6	Lorenz	Carl	math.	Leipzig	Herrnhutstr. 19.	"
7	Pfeiffer	Wenzel	math.	Leipzig	Herrnhutstr. 19.	"
8	Haller	Paul	math.	Leipzig	Herrnhutstr. 19.	"
X 9	Kirchberg	Karl	Med.	Leipzig	Herrnhutstr. 19.	"
10	Luft	Edmund	math.	Leipzig	Herrnhutstr. 19.	"

Leipzig, den 1. Juli 1855
W. Wundt

4. Links between scientific work of Wundt and Health Psychology

Starting with an overview about the work of Wundt as a whole will show us that the work of Wundt consists of three periods:

1. First,

the period of Physiology, in which he worked as a physician and mostly as a researcher in the field of Physiology (1851 - 1874).

2. Second,

the period of Philosophy and Psychology, may be his longest working period. Starting in 1874, this period cannot be clearly divided from his last working period.

3. Third,

the period of Mass-Psychology, the so called "Voelkerpsychology" (after 1900).

In his first working period, in which he started as a student of medicine, he amassed experiences in clinical practice as well as working as a researcher in the field of Physiology under the head of Johannes Müller, Raymond du Bois and Johannes Helmholtz.

Main topics of his work were the electrical Physiology and later the psychophysical Physiology of Perception. For 10 years he worked as a professor of Anthropology and Medical Psychology and besides a lot of anatomic-physiological and neurological works undertaken by him he prepared the first edition of his "Fundamentals of Physiological Psychology" (in German "Grundzüge der Physiologischen Psychologie"). In this period he published about 167 articles, books and reviews.

His second working period began with his appointment to the Zürich University and one year later to the Leipzig University. In 1880 he published Philosophical and General Psychology research works. In summary, his work at this time can be evaluated as pioneering and exemplary for today in his ambition to discover physiological basics of psychological theory and to study experimentally with the help of Physics and Mathematics the laws of psychic processes. Ernst Heackel, a physiologist from Jena, appreciated his work very highly. He said that Wundt was engaged to discover the information processing mechanisms of external impressions in the unconsciousness background of mind.

Wundt also brought into the field of Psychology the term of "experience" as a central term. Wundt named Psychology as the science of "immediate or direct experiencing". In the sixth editions of his "Fundamentals of Physiological Psychology" he summarized the theoretical, methodical, and methodological base for the development and demarcation of the experimental Psychology as an autonomous and separate science. At the same time this knowledge was the base of experimental-psychological research and the foundation of several physiological

laboratories all over the world, as well as in 1879 at the Leipzig University.

In his last working period Wundt published 10 volumes of the "Voelkerpsychologie". The Psychology of masses can be defined as the assessment of psychic processes, which base the general beginning of human societies and the development of common mental products of universal value". With this work he was not only one of the founders of Social Psychology, but moreover he influenced the development of an anthropological Psychology or Cross-Cultural Psychology of the arts, the languages, myths and habits of people. In his life he published more than 500 work-reports, reviews, articles and books, as mentioned before more than 53,000 pages, which equates to roughly seven pages per day.

4.1. Health Psychology related aspects in Wundt's work

It is a serious and difficult task to analyze such an extensively written material under the health psychological perspective. This article can only be the first step in this direction. I would like to try to pick up on some of the interesting parts of the work done by Wundt which seem to have close connections to the Health Psychology.

First, I would like to mention the emotionality of man. Sporadically throughout his whole career and especially in the "Basics of Psychology" (Grundriß der Psychologie) is more than 75 percent of the text dedicated the emotions of man. In all he published about 43 articles concerning the topic of emotion and affects, mostly under the aspect of sensation and development of emotion but also under several other aspects. So he published about e.g.:

- The influence of memory on emotion
- The process of habituation and emotion development
- The influence of emotion on the pulse and breath
- The emotion of pain
- The emotion of color impression
- The connection of emotion and attention
- The emotional effects of regular following of tension and relaxation of the body
- The control of expression of emotions.

His basic ideas about the classification of emotions influenced further research on emotion in the future, like the work of Izard. His three-dimensional model of emotionality as well as his work

about mixed emotions and forms of emotions belongs to the basics in the history of Psychology of emotions.

Here we mention only two facts to illustrate. First to mention is the system of the three basic dimensions of human emotions, divided by Wundt:

1. pleasure - displeasure
2. tension - relaxation
3. arousal - disarousal

The second fact is the qualitative-lingual differentiation between affects given by Wundt. It makes differences between subjective and objective feelings and furthermore between objective feelings referring to the objects of actions at present or on the other hand referring to events and actions in the future.

There is no doubt about it and also in the "Handbook of Psychology of Emotions" published by Euler and Mandl (1983) and by Eckensberger and Lantermann (1985) it is mentioned, that Wundt found and summarized basic findings on the object, the classification, the development, the processing (e.g. emotion control) and the importance of emotions for the human being.

Wundt's work was done in a strong natural scientific way and has no obvious links to the topics of modern Health Psychology research work concerning emotions. But his knowledge about feelings, affect dynamics and influence of emotions on the body covers important milestones to our knowledge and the topics under research today. Unfortunately, in this article it isn't possible to go into more detail. Concerning other interesting parts of Wundt's work concerning Health Psychology I would like to give only an overview. So his work on sensation and perception should be noticed as very important.

Wundt also published about "Hypnotism and Suggestion". He went to great lengths into non – scientifically and spiritistically developments in the psychology of hypnosis. He was convinced that hypnosis is a very important method for psychotherapy. In this connection he excluded work on hypnosis from his laboratories caused by ethical reasons and warned of misuse of this method outside of medical purposes. In a paper about the practical meaning of hypnosis Wundt wrote: "Anyone who has read the careful description of the present main representative of the Nancy School, Bernheim, bearing the character of prudent objectivity in itself ... cannot escape the

impression that what is really important here is an extraordinarily important therapeutic one Method acts "(Wundt 1893, p.73).

Another parts of Wundt's work were concerned to:

- sleep and dreaming
- Principles of exercising and assistance in neurological processes and functions
- Problems of hydro- and water therapy

Concerning sleep and dreaming, referring to Heerwagen, he made a curious comparison between teachers and professors. He came to the result that teachers have light sleep with a lot of dreams whereas professors sleep deeply and seldom dream. Numerous reviews, written by Wundt about books of his time, show also clearly, that he was very interested in the development of problems concerning health and illness, health protection, and the relation of body and mind.

And a lot more can be mentioned about his colleagues and candidates studying for their doctorates. The next part of our article will try to give a short answer to these aspects.

4.2 Health - psychological aspects in the work of colleagues and students of Wundt

More than in the work of Wundt himself, but also in the studies and books of his scholars and colleagues (Figure 5), it will be illustrated how much the experimental foundation of psychology influenced the applied psychology of this time and beyond. That is to note in the work of his colleagues as well as in the work of his candidates of doctorates too, because most of them worked more applied psychology.

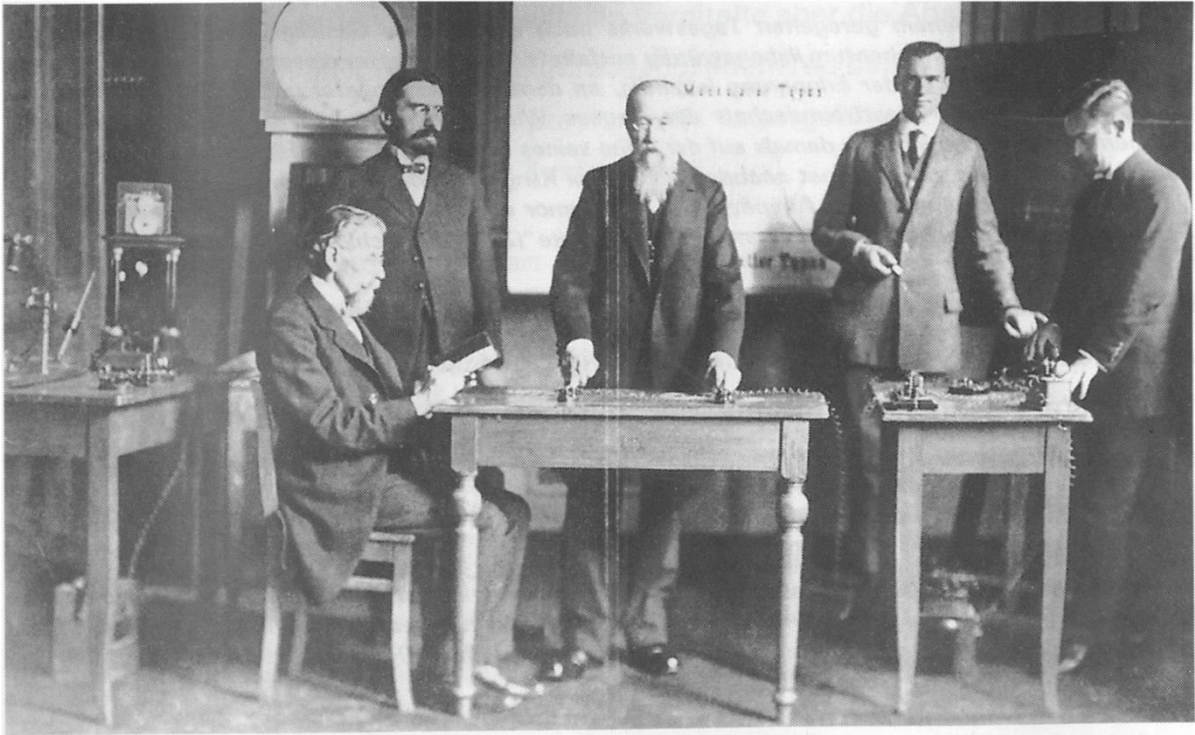


Figure 5: W. Wundt and Co-Workers (1912 (from left to right: Dittrich, Wirth, Wundt, Klemm, Sander)

Two colleagues of Wundt, working in Leipzig, should receive a special mention in particular:

1. Max Brahn (1873 - 1945): After obtaining his doctorate he worked as a private lecturer at Leipzig University and helped to establish the "Institute of Experimental Pedagogy and Psychology " under the local teacher's union. This second institute of its kind in Leipzig, launched with assistance from Wundt, aimed to extend experimentation to the study of psychological problems in educational science so that teachers would use psychology in their work. Brahn was particularly concerned with the presentation of subject matter for better absorption into the child's memory, and with the role of attention and motivation in class. He studied co-education, requirements to be made and problems to be set by teachers, the placing and duration of school vacations and in other topics related to the problems of health of pupils and as well teachers.

2. The second name I would like to mention is **Ludwig Strümpell (1812 - 1899):** Strümpell worked at the same university as Wundt. Although Strümpell and Wundt did not see eye to eye, both of them were co-founders of the psychology of children and children's psychopathology and Strümpell himself must have been influenced by Wundt. Most of his relevant health-psychology work was concerned with attention, dreaming, and children's disorders in an educational context. Strümpell influenced the founding of a healthy school system and was also

the co-founder of the first Leipzig Teachers Psychology Institute.

Wundt's influence will be very clear in the research work of his students and doctorates too. Very well-known names are to be mentioned here, the numbers of doctorates for several countries are demonstrated in Table 2.

Table 2: Number of doctors in Psychology under the leadership of W. Wundt

USA: 18
Austria: 8
Canada: 1
Romania: 7
The Netherlands: 1
Russia: 6
Switzerland: 2
Serbia: 6
India: 2
Great Britain: 2
Poland: 3
Bulgaria: 3
Belgium: 1

First, I would like to mention **Alfred Georg Ludwig Lehmann (1858 - 1921)**. He was the first experimental psychologist of Denmark, and his life was dedicated to psychophysiology. After studying under Wundt at the Leipzig University, he founded the first psychological laboratory in Denmark and was engaged in investigating the phenomena's of hypnosis, emotional and other influences on health status of body and mind and psychic development.

Karl Marbe (1869 - 1953): Today his work is especially important with focus on addictive behaviour and experimental critique of occultism. He worked on statistics of long living, causal factors of addicts in factories and about the abuse of alcohol.

Other important students of Wundt were Störing, Heller and Hellpach. **Gustav Störing**, the philosopher, psychologist and psychiatrist mainly worked in the field of emotions and psychopathology. **Thoedor Heller** from Vienna was one of the founders of psychology of blindness. **Willy Hellpach**, the German clinical psychologist, discussed in his book on "Clinical Psychology", published in 1949, the development of this science in the whole field of Medicine as well as specific topics of the current Health Psychology like health behavior, coping and questions of prevention. Many of the doctorates of Wundt cannot be observed here.

Last but not least, we are to remember in this order, Krapelin, Münsterberg and Bechterew. **Emil Krapelin**, the German psychiatrist habilitated at the Leipzig University. He was, throughout his life, a friend of Wundt as a number of letters shows us. and both had a fruitful exchange of ideas (Steinberg, 2002, Figure 6).

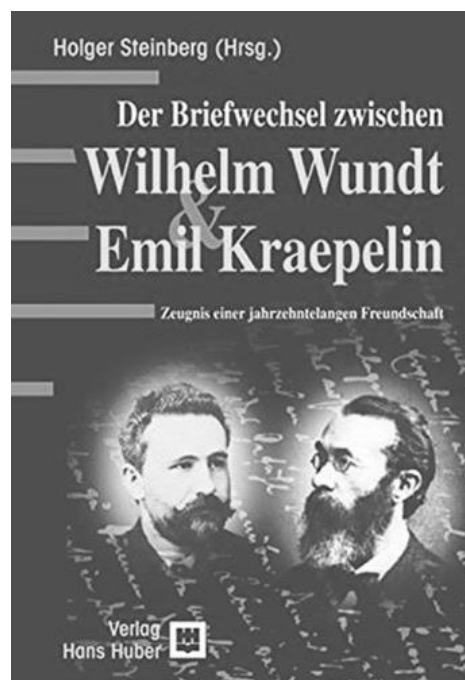


Figure 6: The published letter exchange between Wundt and Krapelin

Hugo Münsterberg after his studies under Wundt undertook his doctorate of philosophy and medicine at the Leipzig University. He worked later at Harvard and Cambridge Universities and defined the term of “psychotechnique”, publishing about the will, psychotherapy, "Psychology and Social Sanity" and teacher's psychology. Münsterberg is also one of the founders of Traffic

Psychology.

Wladimir Michailow Bechterew (1857 - 1927) was another one Wundt's foreign students. He belonged to the Great Russian psychiatrists and the founders of Russian reflexology and objective psychology. He observed psychopathological symptoms, the phenomena of hypnosis and described mental disorders, and he was the founder of the psycho-neurological research Institute of St. Petersburg.

The next chapter points out some aspects of Wundt's private life from the Health Psychology point of view.

5. Some aspects Wundt's life observed from the Health Psychology point of view

Very important for this purpose is the autobiography of Wundt, which he gave us in his book "Erlebtes und Erkanntes". The title of this book can be translated as "Things, experienced and recognized in my life". In this article only some of Wundt's interesting human characteristics can be mentioned which have links to Health Psychology.

Wundt had difficulties in concentrating and being attentive throughout his life. A little proud, he reported in his autobiography that during his whole life he was able to produce fantasies and to imagine freely to a great extent. It seems that in his youth he was an absolutely romantic boy who often lived in a fantasy world. He reported about himself that this play of fantasies changed into a more habitual attention deficit (in German he named it "einsames Phantasieren und schweifende Zertreutheit"). Maybe this is one reason that one of his teachers recommended him to finish grammar school earlier than planned and to become a postman.

A second noteworthy characteristic was his need to explore and to know. Most of all he felt a "need to read" in a quantitative as well as qualitative way. He hoped to be able to tackle the whole of German literature one day. Later on, the large amount of reviews showed his interests to be informed in other sciences as well.

Another fact of his life was concerned with his need to have good social relationships, in his family as well as with colleagues and students. In each case he used and profited from the important and health-protective role of social networks and the resulting good social support. He reported about the help to integrate himself at the Leipzig University given by the Leipzig

community of scientists. It is also well-known, that he opened his house for colleagues as well as foreign students in order to give social support to others. Letters of colleagues and students recall the Sunday afternoon rounds, the house music hours and at Christmas time in the circle of Wundt's family.

What is to be said about W. Wundt's life-style concerning health protection?

He was not an absent-minded professor. He was able to work hard in later life. In doing so he got up early in morning. Perhaps he lived under the motto: "Early to bed, early to rise makes a man healthy, wealthy and wise". He learned to work goal-directed, and ambitiously, and it is reported that he was very orderly in his life.

As a further part of his healthy life-style, he could be seen going on extended walks through the beautiful Leipzig wood (Auewald), a big woodland within the city of Leipzig. Every day he walked to give his lectures at the University as well as a daily walk directed to a certain tree in the Auewald. The so called WUNDT-Oak was the goal of his daily walk, an oak tree planted by him. And it is reported that one could synchronize the time by him. So he realized the role of regular physical exercising although he was not a great sportsman. In his youth he was not very interested in playing football either.

A letter written from Wundt to his son Max from February, 1th 1920, in the last year of his life, shows us his opinion about sleeping pills and other drugs. He wrote, that taking sleeping pills cannot be recommended for young people. He mentioned in this letter the danger of habituation and abuse of drugs like this.

The confrontation with illness brought him a new insight in his life. Two of his children died young or at birth. But of more interest is a large report about the time after he gave his first lecture. In 1857 after returning from Berlin he started to give lectures as a private lecturer at the Heidelberg University. He wanted to present the whole Physiology course in four modules in lectures of six hours per week in his own flat. The lectures were accompanied by demonstrations and experiments. But after finishing the General Physiology part a sudden hemorrhage followed and the result was a long period of illness, nearly one year. The causes are unknown, but stress could be one cause too. It was a silent time of suffering and at the same time a change in his philosophy of life took place. The physicians didn't have any hope for his recovery and Wundt asked for his brother to say goodbye to him (in the age of 25). In his autobiography Wundt described this status of dying. He described the necessity of dying without pain and he described

the help given by believing, silence and the trust that he had fulfilled his life's meaning. In this part of his autobiography we discover the optimistic view of his life philosophy and a bit of a "Sense of Coherence" that is necessary to feel healthy and to die satisfied. Wundt reached old age without most of the usual infirmities which accompany it. Apart from blindness in his last days he was hale and hearty and in full possession of his faculties until his death at the ripe old age of 88 in 1920 in Grosbothen near Leipzig (Figure 7 and Figure 8).



Figure 7: House in Großbothen near Leipzig where he lived in elderly life



Figure 8: Grave at Leipzig's south cemetery

6. Conclusions

In conclusion we can see W. Wundt was not the first Health Psychologist of the world, but we can only imagine how much his life and work has influenced the development of Health Psychology in the present. This article can only give a small insight into the life and work of Wundt in relation to topics of modern Health Psychology. It seems to be interesting to continue to analyze his life under this aspect in order to answer the question whether the name of Wilhelm Wundt belongs in the history of Health Psychology. Oswald Külpe (1908) wrote in the same manner:

"Wundt's ability to engage in all areas of knowledge to work in and all of them through fine and witty combinations, stimulating ideas and studies and one rare gift of systematic-architectural structure fertilize has not only made it the largest" polyhistor" of our time, but also to become the most successful representative of a mediation between philosophy and the individual sciences", which "in this regard as a to designate modern Aristotle or Leibniz" (a letter from Oswald Külpe, 1908).

But we are sure, that the work of Wilhelm Wundt at the University of Leipzig, which is

preserved at the Department of Psychology over the years, is an outstanding example of creative activity and productivity in the service of scientific development. Wundt's encyclopedic knowledge, his organizing talents - even his openness and humanistic convictions - bore rich fruits. Furthermore, we are sure, that the science of Psychology - Health Psychology included - has much to thank him for.

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Historical Aspects of the Educational Psychology at the University of Leipzig

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Abstract: If we want to outline the history of Educational Psychology at the University of Leipzig, one encounters a long history and a changeable development. The prehistory of educational psychology goes back to the memory of great philosophers and pedagogues such as Comenius, Rousseau, Pestalozzi, Froebel and above all Herbart, who, as the founder of scientific pedagogy and didactics, defined psychology as an empirical science in the service of pedagogy.

We will differentiate the historical view on the Educational Psychology in Leipzig with four phases (Witruk, 2015): The Founding phase (1846-1933), the phase of National Socialism and second world war (1933-1945), the phase of New Beginning after second world war (1945-1990), and the phase of Developing after Reunification of Germany (from 1990).

1 Founding phase (1846-1933)

The founding phase of the Educational Psychology in Leipzig started very early in 1846 with the founding of the Leipzig Teachers Association, which developed Educational Psychology and used experimental methods and apparatus.

The German Teachers Association was founded in 1871 and had in the year 1875 5.000 members.

In the year 1910 founded Ernst Meumann a student of Wilhelm Wundt the Institute for Experimental Pedagogy and Educational Psychology at the University of Leipzig. This institute had strong relations to the Leipzig Teachers Association and they organized qualification of teachers and research together.

Wilhelm Wundt expressed in September 1912, after he had become a honorary member of the Leipzig Teachers' Association, that he placed this recognition of his psychological work above any other of his honor's (Meischner-Metge & Schroeger, 2020).

The Founding phase was connected with founding's of some Institutes and professorships for Educational Psychology and in 1899 in the first appearance of the Journal of Educational Psychology and experimental Education.

In Leipzig was it Ernst Meumann as a student of Wilhelm Wundt which applied the basics of experimental work for the Education and the Educational Psychology (Meumann, 1913).



Figure 1: Ernst Meumann (1862 – 1915)

During the same time the Reform Education developed in Germany.

2 Phase of National Socialism and second world war (1933-1945)

Between the two world wars, there is a strong development of diverging theoretical conceptions and schools of psychology in Germany and worldwide. This school education influenced and thus divided the young discipline of Educational Psychology. There is a differentiation into a natural-scientific-atomistic, a behaviorist, a gestalt psychological, a holistic psychology as well as a depth psychologically oriented Educational Psychology.

In Leipzig will be replaced in 1922 the natural-scientific Educational Psychology by Mister Volkelt into the holistic educational Psychology. The Leipzig teachers Association was 1933 closed by the National Socialistic party and new founded under the leadership of the NSDAP with Mister Burghard.

At the end of this phase 1942 to 1945 Mister Rudert was the leader of the Institute of Psychology and founded an Educational Advice Centre. The Institute was 1943 destroyed by bombs.

3 Phase of New Beginning after the second World War (1945-1990)

The two representatives of educational psychology Volkelt and Rudert were dismissed from the University of Leipzig after the end of the war. Thus, due to the consequences of the war and the dismissal of teaching staff with a National Socialist past in 1945, after the end of the 2nd World War, a critical personnel situation had occurred.

After some other solutions the University of Leipzig called Mister Fischel from West Germany to the Institute director in the time 1955 to 1965. Adolf Kossakowski was in this time the leader of Educational Psychology before he got the call to Berlin.

Günter Clauß, who was employed as an assistant in 1951 and appointed professor of pedagogical psychology in 1969, published the textbook "Child Psychology" in 1958 together with Hans Hiebsch and Hans Böttcher, which has experienced a wide international distribution and marked the new beginning of the development of pedagogical and developmental psychology in the GDR.

As part of the Third Higher Education Reform in the GDR in 1968, the Psychological Institute "Wilhelm Wundt" was transformed into a "Psychology" department of the Pedagogy/Psychology Section. Two pedagogical-psychological research traditions developed here: Under the direction of Adolf Kossakowski and later Wolfgang Kessel, the working group "Social Psychology of the School Class" was founded. On the other hand, under the direction of Clauß, Conrad, Knöchel and Lohse, a research center "Theory and Methodology of the Programming of Teaching and Learning Processes" was founded, in which a very fruitful interdisciplinary work of psychologists and educators developed in the 60s and 70s.

After Adolf Kossakowski was appointed to the Academy of Pedagogical Sciences in Berlin in 1970, Günter Clauß (1985) took over the management of the scientific field "Educational Psychology" until his retirement in 1989.



Figure 2: Guenther Clauß in the year 1978

A special field of research in this time was the electronic programming of teaching and learning by the teaching automat UNITUTOR. Here worked Michael Roehr, Eberhard Bischoff and Evelin Witruk on problems of the application of these teaching automats.

Jürgen Guthke (1972) connected the idea of the programmed instruction with the psychological Assessment. He developed 1972 the first standardized training phases in a learning test and could show their advantages to traditional intelligence tests. In this field of research today known as dynamic assessment were also involved Ernst Winkler and Karl-Heinz Müller.

Clauß, Guthke and Lohse edited 1976 the book „Learning psychological links for lesson design“.

In the year 1975 was founded the new section „Psychology“, and under the leadership of Manfred Vorweg the XXII. International Word conference of Psychology in Leipzig was prepared. The main point of the Educational Psychology was in this time the cognitive psychological analysis of the cognitive styles. The articles of Günther Clauß to Basic analysis of cognitive processes during learning processes 1985 and Hans Fuchs, Tobias Jurack and Evelin Witruk were fundamental. Evelin Witruk started in this time her research field of reading automation and reading problems.

On the other side in the research group of Wolfgang Kessel they investigated the teacher personality and the health of teachers.

In the year 1989 Günther Clauß was retired and Gerhard Lehwald followed him in this position.

4 Developing after Reunification of Germany (from 1990)

With the political change initiated in 1989 and the reunification of both German states, educational psychology at the University of Leipzig also came to serious changes. The restructuring of teaching meant that psychology for teacher students was detached from the Institute of Psychology and integrated into the Faculty of Education.

Under the direction of Siegfried Hoppe-Graff and Elsbeth Stern and, from 1999, Harald Marx, a department for educational psychology was founded here, which was and is responsible for the training of prospective teachers, special education teachers and master students.

At the Institute of Psychology remained one professorship for Educational Psychology which was appointed 1992 by Evelin Witruk. In the year 2004 a denomination change took place into Educational and Rehabilitative Psychology.

Educational Psychology was taught as Basic and as Major subject and Rehabilitative Psychology was integrated as one of the Major subjects and was very attractive for the students.

By digitalization of the works of Wilhelm Wundt a substitution of the experimental program also into Educational Psychology was possible (Meyer, Mädebach, & Schröger (2017).

In the year 2017 Evelin Witruk was retired and the last professorship position for Educational Psychology in the Institute of Psychology was cancelled. Therefore the Educational Psychology is still existing at the Faculty of Education.

To sum up the professional activities of the Educational Psychology at the University of Leipzig from 1972 until 2017 a high degree of continuity can be observed, which is related both to its experimental orientation and to its methodological focus as experimental psychology as well as to its thematic orientation as applied cognitive psychology and as a social and educational scientific orientation of Educational Psychology.

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II

Psychological Aspects of COVID 19 Pandemic

Impact of covid19 pandemic in psychological wellbeing of adults - a biopsychosocial approach

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Abstract: Well-being has been approached in a very fragmented way, through multiple theoretical models, which does not benefit the multifaceted nature of human phenomena, which are intrinsically holistic and complex, as is the case of studies that seek to delimit the factors that influence well-being, being and inclusion in vulnerable people.

In this project, we assume a eudaimonic conception of well-being, or a state of harmony resulting from the full functioning of the individual's potential, including thinking, reasoning, affections and emotions (Ryff & Singer, 2008).

While successful participation and inclusion is a universal right, in the current pandemic context it is a challenge for many citizens. For people with vulnerabilities these rights are even more challenging. Adapting the environment to make society more accessible is one of the ways. However, these environmental adaptations are not easy as they require a clear understanding of people, their capacities and vulnerabilities and contexts, barriers and potential.

In the current context what does it mean to be vulnerable? As Ahmad et al. (2020) refer, vulnerable people are all those who are disproportionately exposed to health, economic, social and psychological risk. But in the current context, who is included in these groups can dynamically change. A person not considered vulnerable at the start of a pandemic can become vulnerable, depending on the political and social responses available to them. The risks of sudden loss of material or economic resources, or limited decision-making power, can have consequences that are difficult to estimate and pose a challenge in identifying all those who may become vulnerable and in understanding the inter-individual differences that characterize their psychosocial adjustment to the pandemic in the short and long term.

It may be too early to fully understand the real consequences of the Covid-19 pandemic around the world, but it is urgent to try to explain the psychological processes that occur in people due to the public health protection measures adopted and their manifestation in terms of inter-individual variability and the scientific community has responded.

In this COVID-19 pandemic, from the beginning, the elderly, people with health problems, people with economic problems and migrants have been part of the most vulnerable group. But quickly, children and young people, due to the conditions of social isolation and distance learning, and their parents, due to the need to reconcile work and support for their children, and professionals who were in the first line, also began to integrate these groups.

In this study we present the Impact of covid19 pandemic in psychological wellbeing of adults based in a revision of Portuguese, German and Polish studies (Bidzan-Bluma, Bidzan, Jurek, Bidzan, Knietzsch, Stueck and Bidzan (2020); Candeias, Galindo, Stueck, Portelada and Knietzsch (2021)).

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Psychology of Disaster and Pandemics

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Abstract

This paper analyzes the contribution of the psychology of disaster to understand the psychological effects of the current COVID-19 pandemics. After an introduction on the definition of disasters and the material, social and psychological consequences, a review is made of the consequences of the current pandemics at an individual level, from the point of view of psychology. The population is attained in terms of the “distance to the event”. PTSD, ASD, GAD, depressive disorders, substance abuse, obsessive compulsive disorder, insomnia, and cognitive decline seem to be common effects. A special mention is made of conspiracy theories as a psychosocial effect of disaster. Nevertheless, past experiences with disasters show that about 80%-85% of the population is able to cope successfully with negative effects. The urgent need of psychological intervention before, during and after a disaster is emphasized, including the case of pandemics.

1. Introduction

The objective of this chapter is to analyze the research carried out by the psychology of disaster and look for the important facts that can help us to understand better the current pandemics situation in the world, especially in the European Union. The psychology of disaster has accumulated a huge amount of scientific knowledge on the psychopathological, epidemiological, psychosocial and psychobiological consequences of disasters, on the intervention strategies for the different victims and on the possible prevention measures to prepare the population for a disaster case (see for instance Lopez-Ibor, 2004). A special mention must be made to aspects related to the selection, training and organization of health personal working in disasters, as well as to the management of mental health services during and after the disaster, including the mental health of the nurses, physicians and other caregivers (see for instance Myers, 2006).

A disaster has been defined as a tragic event of big dimensions, causing death, pain and destruction in such a degree, that it cannot be managed with the normal resources of society (Myers, 2006). There are always victims affected in different degrees. The institutions are suddenly unable to manage immediately and effectively the situation. It is always necessary to

apply urgent measures in order to reduce as much as possible the damages. And the material, social, political and psychological consequences are always similar. As we will see, most of these considerations apply thoroughly to the current pandemics situation.

In terms of the type, we find natural disasters, like earthquakes, tsunamis, fires, floodings, landslides, storms and tornados (Ross, 2002). Presently, it is possible to add pandemics as one more type. As we will see, Taylor (2019) published a “Psychology of pandemics” and was able to predict the current situation one year before the disaster. On the other hand, we find human made disasters, like wars, terrorist attacks and accidents (Horgan, 2005). Nevertheless, the borders between these types are not clear, since the human action can deeply change the effects of natural events. A good example is a storm, where the destructive effects depend in great measure of the applied prevention measures. Another example is the current pandemics: the effects depend thoroughly on the degree of participation of the population in measures like keeping social distance, using a mask and accept the vaccination.

A disaster has material, social and psychological effects. Material effects are the loss of human lives, loss of property and richness, the eventual destruction of nature, and the usually high number of wounded or displaced persons. The social effects depend on the number of wounded, dead, displaced or (otherwise) affected persons, on the capacity of society to give respond to the urgent needs of the population during and after the disaster, and finally on the financial resources of society. The incapacity of the authorities to control the effects can produce a so called “second disaster” (Myers, 2006), i.e., the destructive effects can be multiplied or reduced as a consequence of the measures applied by the society. A possible consequence of a wrong management can be a social malaise with unpredictable political impacts. In the current pandemics, we observe the material effects in the loss of human lives, the loss of health during short or longer periods by a part of the population, and in the financial losses of some segments of the population, like the owners of restaurants and nightclubs, and the makers of culture. Evidently, the social effects will depend on the capacity of the different states to give financial support to the affected people. The psychological effects on the population of events like earthquakes, landslides, floodings, storms and terroristic attacks have been relatively well documented since the middle of the 20th Century (Azarian and Skriptchenko-Gregorian, 1998; Bland, O’Leary, Farinaro, Jossa and Trevisan,1996; Myers, 2006). It is known that these effects are differential in terms of “distance of the person to the event” (Fig.1).

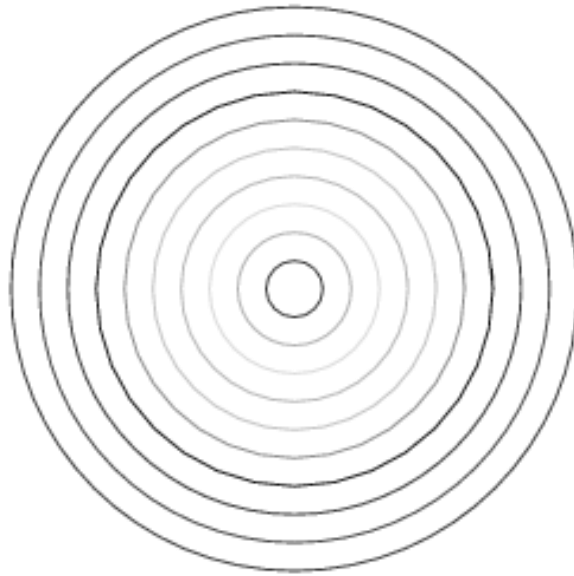


Figure 1: Distance of the person to the event

The distance of every affected person to the event depends first of all on the degree of his/her personal losses, but also on his/her relation to other affected persons and then on the factual distance to the event. So, a person can:

- 1) Lose his/her health, i.e., she/ he has been wounded.
- 2) lose beloved ones, i.e., some members of the family are dead.
- 3) Lose properties, i.e., house, financial resources, workshop, factory, shop, engines, tools, and so on.
- 4) Have a member of the family who has suffered losses.
- 5) Be a presently witness of the event.
- 6) Be a witness of the effects of the event.
- 6) Be informed on the event through the media.

Evidently, a person who has been wounded (case 1) and has lost beloved ones (case 2) and properties (case 3) is in the center of the concentric circles. Whereas a person who only has been informed of the event through the media (case 6) is in the external circle. Between both extremes, all kind of different situations will be found, i.e., there are different relations to the disaster and consequently different effects on psychological health of the people.

On the other hand, we have roughly three kinds of affected persons, namely, a) the persons being victims of the event in different degrees, b) the persons participating in rescue and health activities and c) the general population (Myers, 2006). Research seems to confirm that the more affected for the event is the individual, the more probable is being affected by

psychological disorders. Nevertheless, researchers point out that between 85 and 90% of the population can deal properly with the crisis, i.e., only a small percentage of the affected persons will suffer a disorder.

In the current pandemics, we observe roughly the same kinds of affected persons:

- 1) Those who have been infected.
- 2) Those who have lost beloved ones, i.e., members of the family.
- 3) Those who have suffered financial losses due to the different measures to control the pandemics.
- 4) Those who have a member of the family who has suffered losses.
- 5) Those who have witnessed death and disease.
- 6) Those who have witnessed the effects of the event in relatives, friends, colleagues or neighbors.
- 6) Those that have followed the development of the pandemics through the media.

Consequently, we can suppose with high probability that we have currently three kinds of affected persons: a) the victims of the disease in different degrees, b) the persons participating in health activities and c) the general non-infected population. We can also suppose that most of the population will deal properly with the crisis, i.e., only a small percentage of the affected persons will need some kind of therapy.

Regarding the psychological effects of disasters, on a psychosocial level the most common listed sequelae are contradictory. In a frame of common anxiety and insecurity feelings produced by the catastrophe, the first reaction is usually a national or community feeling of common fight, deriving in solidarity actions. In a second phase, it appears a feeling of distrust toward the institutions and a search for blame. In this context, the emergence of conspiracy theories is common. On an individual level, the most common traumatic effects of disasters and other violent events (violation, kidnapping, accidents) are PTSD, acute stress disorder, depressive disorders, anxiety disorders and substance use disorders (Bland, O'Leary, Farinaro, Jossa, and Trevisan, 1996; Miguel-Tobal, and Martínez-Sánchez, 2004; Myers, 2006; Norris, 1992). Other common syndromes observed after a disaster are somatizations, hostility, sleep disturbances, guilt feelings, social isolation, mistrust, pessimism, despair, irritability, aggression and panic attacks (Azarian and Skriptchenko-Gregorian, 1998; Bland, O'Leary, Farinaro, Jossa, and Trevisan, 1996; Miguel-Tobal, Cano-Vindel, Iruarrizaga, González, & Galea, 2004). As we will see, the observed effects of the current pandemics are very similar.

2. Psychological effects of Pandemics

Taylor (2019) published one year before the pandemics a prophetic book on the psychological effects of pandemics, describing the situation that we are living currently in Europe. He lists as relevant psychological factors for the possible effects of an epidemic the health anxiety, an excessive exposition to data (and to distortions) about health and illness and inaccurate beliefs about health and disease. Other potentiating factors are prejudices, the way diseases are named, the role of the media describing the epidemics, attitudes toward vaccinations, the official management of rumors, and the psychology of conspiracies. Those psychological factors –says Taylor-- play an important role in the adherence to vaccination and social distancing, because nonadherence to vaccination is a widespread problem. They are also determinant in the way in which people cope with the threat of pandemic infection and its sequelae, such as the loss of loved ones. They are important for the understanding and management of excessive fear in the individuals, because people may fear for their health, safety, family, finances, or jobs. And finally, they are essential for understanding and management of maladaptive defensive reactions, such as stigmatization and xenophobia. The observations made during the current pandemics point out that Taylor was right, as the following part of this chapter will show.

2.1. Psychological effects of covid-19

What we know presently about the effects of COVID-19 is that there is a difference between infected and non-infected persons. In addition to the already known physical syndrome, infected persons present neurological, cognitive and emotional symptoms like dizziness, confusion, and delirium. Long term effects have also been reported. According to Fotuhi, Mian, Meysami and Raji (2020), patients suffer of anosmia, stroke, paralysis, cranial nerve deficits, encephalopathy, delirium, meningitis, and seizures, although it is still not clear which are the mechanisms underlying these neurological complications. Some long-term sequelae are depression, obsessive compulsive disorder, insomnia, cognitive decline, and accelerated aging, which probably could have further consequences in the patient, as Parkinson's disease or Alzheimer's disease. In an impressive letter addressed to The New England Journal of Medicine in April 2020, a group of physicians from the University of Strasbourg (Helms et al., 2020) describe the neurological features of 58 severe COVID-19 patients. Agitation was present in 40 patients; 26 were noted to have confusion, 15 had a dysexecutive syndrome consisting of inattention, disorientation, or poorly organized movements in response to

command. Further, infection was associated with encephalopathy, prominent agitation and confusion. Other reported syndromes are anxiety disorders, cognitive problems, muscular weakness, severe fatigue and neuropathies.

Non infected persons are afraid of contagion, suffer under the applied lockdown and the prevention measures bringing dramatic changes in daily life, like masks, social distance and limitation of social contacts, and finally are anxious about expected financial losses and unemployment. It seems to be an ideal frame for conspiracy theories. According to studies made in China, the main psychological consequences of pandemics in the non-infected population are PTSD, anxiety, depression, sexual problems, and lower well-being. In this line, Zhou et al. (2020) conducted a study among 8079 Chinese students aged 12–18 years. They found a prevalence of depressive symptoms, anxiety symptoms, and a combination of depressive and anxiety symptoms of 43.7%, 37.4%, and 31.3%, respectively; female gender was more affected by depressive and anxiety symptoms. In terms of grades, the higher the grade, the greater the prevalence of depressive and anxiety symptoms in the young people. Li, Li, Xin, Wang and Yang (2020) studied the changes in people's sexual behavior in a sample of 270 men and 189 women. 44% of participants reported a decrease in the number of sexual partners and about 37% of participants reported a decrease in sexual frequency. Additionally, it was found a decrease in risky sexual behavior. Yang and Ma (2020) conducted two large-scale nationwide surveys, one immediately before the coronavirus outbreak and the second during the outbreak ($N_1 = 11,131$; $N_2 = 3,000$). They we found a 74% drop in overall emotional well-being. Factors like residing near the epicenter, being elderly and poor relational issues (like not married vs. married) increased the negative effect on emotional well-being. On the other hand, they observed that individual knowledge about coronavirus seems to be a protective factor, because higher perceived knowledge was associated better emotional well-being. In two separate letters of opinion, Yang, Li, Zhang, Zhang, Cheung and Xiang (2020), in China, and Armitage and Nellum (2020), in the United Kingdom, point out to the difficult situation of the elderly people, due to the fact that most of the deaths caused by COVID-19 were older adults, and because they have limited access to internet services and are more vulnerable to isolation. They conclude that the pandemics can exacerbate the risk of mental health problems and worsen existing psychiatric symptoms in these people.

Additionally, a constant flow of (real or fake) bad news in the media seems to enhance negative effects on mental health. In this line, Garfin, Silver and Holman (2020) compare the current pandemics situation with other past collective trauma, like terrorist attacks, where

media coverage has had negative repercussions in public health. They conclude that global media exposure to the pandemic is a related threat, because repeated media exposure can unduly increase anxiety and stress responses.

2.2. Psychological impact of quarantine

The psychological impact of quarantine deserves a special mention. Brooks et al., (2020) made a review of existing studies on the topic, using electronic databases. They found mostly negative psychological effects of quarantine, like post-traumatic stress symptoms, confusion, and anger. Most of the adverse effects come from the imposition of a restriction of liberty, because voluntary quarantine is associated with less distress and fewer long-term complications. Stressors included longer quarantine duration, infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss, and stigma. Some researchers have suggested that quarantine has long-lasting effects. The researchers recommend to give the affected population a clear rationale for quarantine and accurate information about the reasons, the duration, and the expected results. Effective and rapid communication is essential. It is also essential to ensure that sufficient supplies are provided to people in quarantine. Additionally, appeals to altruism by reminding the public about the benefits of quarantine to wider society can be favorable, i.e., public health officials should emphasize the altruistic role of self-isolating

2.3. Conspiracy theories

It is a known fact that conspiracy theories (CT) exist since long time ago. For instance, Oliver and Wood (2017) found that 50% of Americans believed in at least one conspiracy theory. These kinds of theories have commonly been associated with anxiety, social isolation and negative emotions (Freeman, and Bentall, 2017). Social researchers are convinced that believing in CTs can be dangerous, because they are often associated to prejudice, violence, terrorism and political extremism. In fact, the series of attacks against citizens of Asian origin in the United States has been associated with CTs. A number of causes has been mentioned to explain the emergence of CTs. Lantian, Muller, Nurra and Douglas (2017) appoint as reasons a personal need to explain strange events, an individual need to feel special or unique, and a need to belong to an exclusive group. Douglas, Sutton and Cichocka (2017) think that the origin is a human unsatisfied need for security and certitude. Van Prooijen and Douglas (2017) add that Cts give the individual a feeling of having control over the world.

Studies made in the present pandemics situation show that 1/3 of adult Americans believe that coronavirus is a biological weapon created in China (Romer, & Jamieson, 2020). Miller (2020), in a study comprising 3,019 American adults, found that 50% believed that the pandemics was due to a Chinese bioweapon and Bill Gates was involved. According to the author, people predisposed to CTs expressed greater personal uncertainty, whereas people with higher emotional resilience were less likely to endorse CTs. Leibovitz, Shamblaw, Rumas and Best (2021), in a study with 797 American and Canadian participants, found that 50% believed in at least one CT about COVID-19, and this belief was associated with greater anxiety. Self-schemas seem also to be involved, because people with more negative feelings about his/herself and the others are more likely to embrace CTs.

Regarding possible explanations, recent research shows an association between mental health and CTs: uncertainty, anxiety and depression seem to be associated. Ruiz (2020) found a relation of CTs with unmet psychological needs, like an individual desire of safety and security, and a need of positive self-esteem. Bloom and Moskalenko (2021) found CTs associated to uncertainty: the anxiety, fear, and isolation associated to pandemics has led people to embrace views offering “certainty”. But results were different in an international study involving 8,806 participants in eight countries (De Coninck et al., 2021): CTs were not associated with anxiety, but with feelings of depression, degree of digital media consumption, and trust in information sources. People feeling more vulnerable were found more prone to CT. The authors conclude that conspiracy theories are a feature of the mind that shapes certainty and control in times of uncertainty and stress.

3. Conclusion

Psychology of disaster has shown, that there are urgent tasks for psychologists before a disaster, during a disaster and after a disaster. Psychologists can play an important role in the preparation of preventive measures. New facts are known every day on the effects of COVID-19 pandemics on different populations in different times and situations. It is important to gather and compare the results of studies made in different countries, in order to create a sound scientific based strategy of prevention. In other words, it is important to make a contribution to help the governments to apply the right measures in the right moment, in order avoid as much as possible a “second disaster”. A good example is fighting against conspiracy theories. We know that CTs are “sticky”: simple and easy to believe. We know that a serious discussion with people believing in CTs is impossible. Jolley and Douglas (2017) suggested

as solution a kind of “vaccination against CTs”, i.e., presenting the affected population real, objective, scientific evidences about the epidemics as soon as possible and warning about the possible “alternative” explanations. Evidently, it is important to prepare the population for other possible epidemics just in the same way as a preparation for earthquakes is made. It is too early to know exactly how to do it, but psychologists must start to gather data.

In the meantime, some immediate tasks must be mentioned:

1) Special attention to vulnerable persons. In an important declaration made in November 2020, the APA called for giving more attention to marginalized populations, like ethnic minorities, people with disabilities, people with low income, older people and groups vulnerable to bias. In fact, the longer lasts the pandemics, more we can see the negative effects in vulnerable persons.

2) Vaccination. By the autumn 2021, the world is witnessing the positive effects of vaccination. For the first time in months, an end of pandemics seems to be possible. Nevertheless, broad segments of the populations in some countries, like France and the USA seem to be reluctant to get vaccinated. As we have seen, reactions against vaccination are common with or without epidemy. Psychologists must develop strategies to convince wider segments of the population of the benefits of vaccination.

3) Health care workers. It is already a well-known fact, that occupational burnout is especially prevalent in health care workers, affecting their own well-being and patient care. Evidently, this people have played a key role in the control of pandemics at a high price: They face an even higher risk during the COVID-19 pandemic and can be considered second victims (Burlison, Quivillan, Scott, Johns and Hoffman, 2021; De Hert, 2020).

Last but not least, it is urgent to study the effects of pandemics in different populations. Some psychologists are warning about the effects of lockdown in the development of children. On the other hand, in spite of the fact, that older people can be considered a vulnerable group as mentioned by Yang et al., (2020) and Armitage and Nellum (2020), some evidences of studies in Europe point to the fact that young people seem to be more affected than elderly by the current pandemics, a fact more in line with the findings of Zhou, S-J. et al. (2020). At least, that is one of the results of the next chapter of this book, a contribution of Candeias, comparing the differential effects of pandemics in Portugal and Germany.

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Post pandemic resiliency training – What are the most important ingredients of a resilience training, which strengthens the resistance forces in a post corona phase

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Abstract

The paper wants to discuss aspects of health promotion after the COVID 19 pandemic situation in many countries around the world. Based on the analysis of many studies and official statements of WHO, national and international health organizations and psychotherapeutic organizations we have collected the proposed strategies for a post pandemic resiliency psychological training program. This seems to be necessary for the prevention of psychological post corona risk factors, as for instance for long COVID symptoms, for people living in high risk environments and for people who are working in hospitals and special clinics. Especially for pupils in schools and young people experiencing isolation, home schooling and home office. Our goal is to develop the theoretical basis of a resiliency training program titled „Post-pandemic resiliency –first aid kit for high risk persons” The most important 13 psychosocial ingredients which we found in a systematic inquiry of recent German literature are described in this article.

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resiliency training program titled „Post-pandemic resiliency –first aid kit for high risk persons” The most important 13 psychosocial ingredients which we found in a systematic inquiry of recent German literature are described in this article.

1. Facts about CORONA 19 – The Corona crisis in the year 2020 and 2021

In Germany in October 2021 were 4 271 734 affected people and 93959 death. The Corona Pandemic is a burden of all people all over the world. There are more than one million corona deaths in Europe since the beginning of the pandemic. Affected people are suffering seriously under the somatic symptoms but also under the somatic and psychosocial consequences of this disease. A government, the health systems of all countries and medical personal has had to learn to cope with the pandemic. Failures arise in the prevention strategies, in treatment and in the vaccination strategies. Many people were and are in unsafely states and felt uncertainty. We were confronted with the dangers of overloading the health system, exhaustion of treatment reserves, triage. And, more and more an increase in the psychological consequences of the pandemic for children and adults was to observe, e.g. disruption of school development, fear, worry and increasing psychological stress due to phase wise repeated lockdown (lockdown - relaxation – lockdown – relaxation). The waves of the pandemic seem to have endlessness and more and more a lack of certainty about development comes up.

The chronicle of previous measures and events of the Coronavirus pandemic (SARS-CoV-2) can viewed for a website of the Federal Government of Germany (Federal Government Chronicle SARS-CoV-2).

From all we could observe a lack of pandemic experience and a lack of protection and testing options interact as fear triggers. And in a relatively short time the vaccination as a possibility come up in the year 2021. The vaccination was and is in some cases seen as compulsory and in Germany the movement of the “Querdenker – lateral thinkers” developed. And in the midst of it, lateral thinkers, vaccine skeptics and increasing division and uncertainty about how to deal with the consequences of the pandemic control measures. LONG COVID symptoms and the Cave Syndromes were reported.

As the pandemic continues, it becomes increasingly clear that a SARS-CoV-2 infection can have long-term health consequences even with a mild course of the disease or an unnoticed infection. Here a distinction can be made between long-COVID and post-COVID. The common long COVID symptoms include often: extreme tiredness (fatigue), shortness of breath, chest pain or tightness, problems with memory and concentration ("brain fog"), difficulty sleeping (insomnia), heart palpitations, dizziness and pins and needles.

The post-COVID symptoms are very similar to the symptoms of Long-COVID seen in adults. The most common symptoms reported are tiredness or fatigue, headache, trouble sleeping (insomnia), trouble concentrating, muscle and joint pain, and cough.

The Post Corona Cave Syndrome isn't an official psychological diagnosis; it is symptom affecting people after a long time of reduction of contacts and after a time of higher anxiety against the virus. After months of more or less strict contact poverty, many people still find it difficult to socialize and to go back in society with feelings of being safe. For this behavior a new term describes the phenomenon: Cave Syndrome. The English word "cave" means that people prefer to stay in their cave instead of going out. The Cave syndrome sounds like a disease but at first it is a completely normal phenomenon. The reason for this is a trained fear of the virus. We have learned that contact with others is potentially dangerous because we could become infected through it. The purpose of this was and is that we are careful - so that a) we don't get sick and b) the coronavirus cannot spread any further.

Within the pandemic crisis the knowledge of all medical disciplines is needed in order to find the way out of the crisis and to offer all help what is possible. The psychological sciences can contribute to the process of overcoming this soon. In this article we would like to draw the attention on the post corona phase. And, the special focus should be the improvement of resilience by post pandemic resiliency training approaches.

2. What is the potential of psychological help?

From the beginning of the COVID 19 pandemic situation and the first lock down we could register that official sites and persons in clinical psychology and psychotherapy have a focus of the psychological consequences of COVID for people and the possibilities to support the medical system, to hold alive psychosocial and psychotherapeutic help. The improving search for psychological support was clear. So it was to see, that the problem was seen as

seriously. The analysis and the monitoring of the psychological consequences of the pandemic for all age groups started in many long term and field studies. In Germany after a short time a new range of online and digital help formats was possible to direct psychological follows.

One aspect was obviously not seen up to now, the orientation towards maintaining and restoring resilience after the pandemic. Here we are in thinking in the context of the psychosocial immune system of the people. In comparison with the immune system of the human body we have to see the following premises for the psychosocial immune system:

- A direct positive strengthening of the human (psychosocial) immune system is not possible.
- It is important to prevent a weakening of the human (psychosocial) immune system

How will it be possible to do this in an effective way? We can follow

- General strengthening of resources (resource activation)
- Reduction of risk factors for the immune system (stress reduction as one way of prevention of risk factors)
- Use the knowledge of positive psychology and modern health psychology

It is to assume, that psychology can have many positive effects on the resiliency of people in and after a common health crisis like COVID 19 pandemic. This was the origin of our search for important post pandemic resiliency factors which can have a great impact on the individual and coping processes. The factors should be possible to include in prevention program and intervention tools for post corona help delivered by psychologists.

3. Research method

In systematic literature inquiry's we analyzed relevant web pages (WHO, APA, German Chamber of Psychotherapists, DGPsy, Red Cross etc.) and the results from open web search engines with the following terms: psychological post corona help, resilience factors in post corona treatment, psychotherapy in corona times). Additionally we organized „focus group“, called also in-depth group interviews (Krueger and Casey 2009). In Group discussions we

moderated the discussion of every five colleagues working as psychotherapists in the Leipzig area (Germany). In the instruction of the focus groups we oriented on the following questions: 1. psychological Post Corona help, 2. important resiliency factors, 3. treatment necessities in prevention of psychosocial COVID consequences. All results were grouped and analyzed by the help of simple content analysis methods (Mayring, 2015).

4. Summary of findings

The results of our work will help us to organize training seminars presented by psychologists who will offer training groups and group therapy session with victims of COVID suffering from LONG-COVID, POST-COVID and psychosocial adjustment difficulties after the pandemic. Outgoing from the results it should be possible to create a systematic overview on important psychosocial resiliency factors. These factors are the basis for the development of intervention tools for individual and group prevention approaches.

The following factors have consistently emerged as tools for strengthening resilience in various recommendations (e.g. WHO, Chamber of Psychotherapists). They are holistic recommendations that contain physical and, above all, psychological resources. The results of content analysis are 13 post-Corona resiliency factors.

We believe that by the help of these factors different types of programs can be developed:

1. Therapy program (restoring people's resilience after infection or in the case of long-COVID symptoms, or CAVE syndrome), and
2. Prevention program (restoring psychological stability and resiliency after the pandemic stress and for reducing the general psychological consequences and increased vulnerability of the corona pandemic)

The Post Corona Resilience program recommendations include the following tools (see overview in table 1).

Table 1: Post corona resiliency stabilization factors

Post Corona Resiliency factors

- 1. Healthy and balanced diet*
- 2. Get enough sleep*
- 3. Regular physical activity*
- 4. Breathing exercises & relaxation techniques*
- 5. Meditation / mindfulness*
- 6. Avoidance and reduction of the consumption of alcohol and other drugs*
- 7. Conversations with friends and family, use of social networks, digital meetings, Skype and ZOOM, without pressure and isolation on the media contacts*
- 8. Detailed daily and weekly planning, maintaining goals*
- 9. Distraction through positive activities, maintaining the agenda and routine behavior, (agency (ability to act) of positive psychology)*
- 10. Euthymic activities (3: 1 rule of Frederickson's broaden and build theory)*
- 11. Finding the right balance (between hope and fear, between sensitization and avoidance, between action and feeling exhausted), development of Emotional regulation skills*
- 12. Keep control (keep the Health Locus of Control internal) a) control the external health locus of control ("I can't do anything like that") or b) Do not allow powerful others to control your thinking ("Only regular visits to the doctor with testing and a vaccination can help me")Keep the conviction of control for health action to yourself.*
- 13. Maintain routines that have an anti-corona effect (calling, writing, video telephony), that is, finding the most individually effective anti-dot-*

Let's begin with some very basic recommendations, but it is important how we can see this rules also in the work of other health risk researchers (Bellocand Breslow, 2012)

1. A healthy and balanced diet

It is an open secret, the men is what he eat. Nutrition today belongs to the most important factors to influence health and wellbeing. The WHO makes it clear: "Consuming a healthy

diet throughout the life-course helps to prevent malnutrition in all its forms as well as a range of noncommunicable diseases (NCDs) and conditions. However, increased production of processed foods, rapid urbanization and changing lifestyles have led to a shift in dietary patterns. People are now consuming more foods high in energy, fats, free sugars and salt/sodium, and many people do not eat.

For adults a healthy diet includes the following (source WHO):

“Fruit, vegetables, legumes (e.g. lentils and beans), nuts and whole grains (e.g. unprocessed maize, millet, oats, wheat and brown rice).

At least 400 g (i.e. five portions) of fruit and vegetables per day, excluding potatoes, sweet potatoes, cassava and other starchy roots.

Less than 10% of total energy intake from free sugars, which is equivalent to 50 g (or about 12 level teaspoons) for a person of healthy body weight consuming about 2000 calories per day, but ideally is less than 5% of total energy intake for additional health benefits. Free sugars are all sugars added to foods or drinks by the manufacturer, cook or consumer, as well as sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates.

Less than 30% of total energy intake from fats. Unsaturated fats (found in fish, avocado and nuts, and in sunflower, soybean, canola and olive oils) are preferable to saturated fats (found in fatty meat, butter, palm and coconut oil, cream, cheese, ghee and lard) and trans-fats of all kinds, including both industrially-produced trans-fats (found in baked and fried foods, and pre-packaged snacks and foods, such as frozen pizza, pies, cookies, biscuits, wafers, and cooking oils and spreads) and ruminant trans-fats (found in meat and dairy foods from ruminant animals, such as cows, sheep, goats and camels). It is suggested that the intake of saturated fats be reduced to less than 10% of total energy intake and trans-fats to less than 1% of total energy intake. In particular, industrially-produced trans-fats are not part of a healthy diet and should be avoided.

Less than 5 g of salt (equivalent to about one teaspoon) per day (8). Salt should be iodized. enough fruit, vegetables and other dietary fibre such as whole grains.” (WHO 2022, 2003).

Unhealthy diet and lack of physical activity are leading global risks to health.

Healthy dietary practices start early in life and will have a higher importance in times of general risk increase in the corona time.

2. Enough sleep & sleep quality

Sleeping habits should be stable, healthy and individual like in non-pandemic times. The normative BRAC-Rhythms, individual bio-rhythms should be known and well-regulated without interruptions and individual best activation times and times to rest are important.

There is a rhythm in our performance: the Basic-Rest-Activity-Cycle (BRAC). It arises due to the changing sympathetic and parasympathetic-dominated phases during the day. Anyone who knows them and aligns their everyday life with them will benefit from increased productivity and greater creativity. Therefore, people have to observe their BRAC breaks or rest-activity cycle. The basic biological rhythm of our body between recovery and exertion is approx. 90-100 minutes. The chronobiologist and sleep specialist Hecht (1993) made the very interesting discovery that we are also subject to this exact cycle during the day. The occurrence of tiredness, a decrease in concentration and motivation are signals from a healthy organism that it is time for a break. If you do not take the so-called BRAC breaks (= basic rest activity cycle) in the long term despite exhaustion, functional disorders in body, mind and psyche up to psychosomatic illnesses occur. Bad, un-refreshing sleep is inevitably the result!

3. Regular physical activity

The rule is: Stay active – continuing to move will help release endorphins and improve your mood. There are different recommendations for planning movement and physical activities. One example is to use a body checker the goal should be 10000steps every day. Another rule is to have every week twice a 30 minutes physical exercise program. Flexibility exercises (like stretches, yoga and tai chi) and strength exercises (like climbing stairs, lifting weights and working with resistance bands) can be useful. Check with your doctor before starting a new exercise regime.

It is to mention that the factors 1, 2, 3 and 6 are also the behavioral immunogens according to Belloc and Breslow (1972). The so called health habits of Belloc and Breslow (1972) come from the results of the Alameda County Study and found out seven behavioral immunogens of high importance for health and longer live. The health immunogens are:

- Do not smoke cigarettes

- Get some regular exercise
- Use alcohol moderately or not at all
- Get seven to eight hours of sleep nightly
- Maintain proper weight f i. a goof BMI
- Eat breakfast
- Do not eat between meals

4. Breathing exercises & relaxation techniques

In all relaxation techniques the breath regulation plays an important role. The relaxation techniques of J. H. Schultz (Schultz, 2002, Autogenics, Autogenic Training) and of Edmund Jacobson (Progressive Relaxation, Derra 2019, Jacobson 2011) have shown very often a self-help oriented way for health and a relaxed body and mind. The positive influence on emotion, cognitions and behavior is scientifically proved.

5. Meditation / mindfulness techniques

Meditation and the mindfulness techniques are well known in his meaning and worth for health and wellbeing since Benson (1976), Kabat Zinn (1990) and others (Harrer and Weiss, 2016; Heidenreich and Michalak 2009). If autogenic training or progressive relaxation doesn't work satisfactory, meditation and other yoga-related breathing techniques or mindfulness techniques can lead to positive consequences for the body and mind.

In number 4 and 5 different ways to relaxation are mentioned. It seemed to be not always easy to take an adequate choice. Some techniques need longer to learn and to come to successful relaxation results (like autogenic training). All techniques have a great value because a self-regulation approach is behind all approaches.

6. Avoidance and reduction of the consumption of alcohol and other drugs

The consumption of drugs, alcohol and other psychoactive substances is dangerous because of the possibility to become addicted. There are clear rules for a non-problematic drinking

pattern of alcohol. The German Central Office for Addiction Issues (DHS) sets a daily average limit of 12 g of pure alcohol for women and 24 g of pure alcohol for men. At least two alcohol-free days per week are recommended. The drinking pattern should allow drinking only up to a blood alcohol level of 0,5 per mille. If these limit values are taken as a basis, the total annual amounts of pure alcohol are around 4.4 L for women and 8.8 L for men. The average per capita consumption of 9.7 liters of pure alcohol goes beyond this recommended limit. With regard to the health-related risks of alcohol consumption, it should be borne in mind that regular alcohol consumption is very often associated with tobacco consumption - this, too, is to be assessed as a significant risk factor and involves not only additive, but sometimes even multiplicative risks in connection with alcohol consumption.

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The World Health Organization (WHO) is currently proposing every day 20g pure alcohol for women and 30g for men as upper limits for (presumably) harmless alcohol consumption.

The British Medical Association (BMA) made recommendations for weekly maximum levels in 1995 and measures this at 112g alcohol for women and 168g for men. Besides that 1-2 days of abstinence per week are recommended so that you can have a non-damaging maximum daily amount of about 20g in women and 30g for men. All three associations are in it unanimously, physically impaired, pregnant women and "dry" alcohol addicts to recommend complete abstinence from alcohol.

In summary, it can be stated that there are different limit value definitions but the truth seems to be less is better and in case of Covid, be abstinent.

With regard to the health-related risks of alcohol consumption, it should be borne in mind that regular alcohol consumption is very often associated with tobacco consumption - this, too, is to be assessed as a significant risk factor and involves not only additive, but sometimes even multiplicative risks in connection with alcohol consumption.

7. Preservation of the social relations

Conversations with friends and family, use of social networks, digital meetings, Skype and ZOOM, without pressure and isolation on the media contacts is very important.

For almost two years now, our lives have been largely determined by a virus that is difficult for individuals to control. The pandemic and the measures to combat it lead to very different professional, private and family burdens for many. At the same time, resources from which one has always been able to draw strength, such as the social environment, sporting activities and hobbies, are less or no longer available. Many respond with emotional and physical stress reactions the longer the situation lasts. These are completely normal, understandable reactions to an abnormal and unprecedented situation. But which - in the longer term - can seriously endanger physical and mental health. The Pope mentioned it in his Christmas message 2021. Pope Francis expressed this using the example of social support: "What would the world be without this patient conversation of so many generous people who have held families and communities together?" (Cf. Encyclical *Fratelli tutti*, 198). We are becoming even more aware of this at this time of the pandemic. Our ability to socialize is severely tested; there is a growing tendency to close oneself off from wanting to do everything alone; one refrains from going out, meeting and doing the tasks together." So this all is directed on the conservation of resources or, as psychologists often say, on the social dimension of resource activation. The theories and findings of health psychology in general and especially the building blocks of resilience are therefore currently of particular importance.

Rule: Connecting with other people can help you feel happier – make sure to keep in touch with family and friends.

8. Detailed daily and weekly planning, maintaining goals

The goal orientation of behavior is always important especially in Corona times it seems to be important. Every people need goals for their development, for health and wellbeing, in times of preoccupation by dangerous facts and thoughts, a clear day structure and no times of only hanging up. The goal orientation can have long and short term goals and must include both types of goals and should daily priorities. There is a wide knowledge about time management techniques and how goals should be set up.

Time management techniques are:

- Planning,
- To-do lists and checklists.
- Prioritizing.
- Evaluating urgent tasks.
- Goal setting.
- Auditing and improving workflows.
- Filtering notifications.
- Setting thoughtful deadlines.

More can be seen in the nine proven time management techniques in the blog about the time management techniques of the St. Augustine University of Health Sciences in Florida. (<https://www.usa.edu/blog/time-management-techniques/>).

Nine Proven Time Management Techniques and Tools

Time management - how we choose to use and organize our time - is something many of us struggle with. Effective time management allows us to make the most of our day, accomplishing tasks more quickly and prioritizing those that will make the most impact. Different people need different time management strategies. A student may choose to manage his time in a different way than someone who is a working mother.

Every person must figure out a process that works for him. Whatever that may be, is key to creating your most efficient life also in corona times. In the above mentioned website nine popular time management techniques were explored, from the 80/20 rule to the “eat that frog” method.

9 Types of Time Management Techniques are:

1. Pareto Analysis (a.k.a., the 80/20 rule)
2. Pomodoro Technique
3. Eisenhower Matrix
4. Parkinson’s Law
5. Time Blocking Method

6. Getting Things Done (GTD) Method

7. Rapid Planning Method (RPM)

8. Pickle Jar Theory

9. Eat That Frog Technique

Goal setting should be better with the SMART technique (specific, measurable, achievable, relevant, time stamped) or how described in the stress management program “Mastering stress optimistically” i.e. concrete, realistic and action-oriented (Reschke and Schröder, 2010).

9. Distraction through positive activities, maintaining the agenda and routine behavior

It is important to preserve the personal agency for a good and successful day. This is the ability to act (Seligman, 2012) of positive psychology). Herewith is it possible to plan and realize a day without overwhelming stress and to preserve a positive mood state. The positive break brings ne energy in the daily routines. Especially for thinking or memory problems and in Long Covid context it can help to follow the rules:

1. Make notes to help you remember things – whether it’s in work meetings or medical appointments.
2. Try to reduce distractions.
3. It can help to make a clear plan before approaching any new or complicated problem or situation. Break it down into steps, and keep checking your plan as you follow it.
4. Learn to cope with negative preoccupation symptoms.

10. Euthymic activities

Positive emotions and the ability of a stabilizing pattern of emotion regulation are important (Lutz, 1983). This means not only the ability to cope with negative feelings and mood states, but also the goal-setting to regulate wellbeing (Frank and Flückiger, 2022). The Positive Psychology focus on a 3: 1 rule according to the broaden and build theory of Fredrickson (2001, 2011, 2013), Fredrickson and Joiner (2002) and Fredrickson and Losada (2005). The Broaden-and-Build-Theory was developed and researched by Barbara Fredrickson from

University of North Carolina at Chapel Hill at the Positive Emotions and Psychophysiology Lab (PEPLab). It is a central theory in the field of positive emotions and an important basis of positive psychology. Fredrickson found in her research that positive emotions expand human perception ("broaden"). When we experience positive emotions, we are able to perceive and process more stimuli and more neural connections are formed. This supports mental flexibility, creativity, openness, improves problem-solving skills, and enables new thoughts and the recognition of possibilities and opportunities. This short-term build-up of resources leads to the build-up of long-term resources. Through broadening, new or more stable relationships can be built, problems can be solved and new opportunities can be used, skills can be learned or improved, more self-efficacy is experienced and resilience is strengthened. This multitude of new resources in turn leads to positive emotions, which sets an upward spiral in motion.

Positive emotion regulation is possible by the help of many strategies (Frank and Flückiger, 2022), but also by concentration on a simple set of enjoyment rules (Tatarzewicz, 1984).

The exercises of the "Little School of Enjoyment" (Lutz, 2004) are parts of a behavior-oriented, complementary group therapy that focuses on promoting everyday enjoyable experience and behavior. The goal is that by relieving and compensatory behaviors, a balance against stress and symptoms should be created. The offer is suitable for patients with a wide variety of disorders from the psychiatric and psychosomatic area. Ten individual sessions to sensitize the participants in the five sensory areas of smell, touch, taste, sight and hearing are worked out in detail in the manual. The combination of introductory exercises, independent experimentation and guided introduction exercises is convincing. There are many materials with a stimulating content and a reference is made to the so-called enjoyment rules.

11. Finding the right balance

Today we don't have so much trust in simple theories, like the theory of homeostasis. But in time of corona we are often confronted with the dichotomy of two sides of one medal. To find a good balance between hope and fear, between sensitization and avoidance, between being in

action and/ or feeling exhausted seems to be very important. It seems to be a function of our life to be in balance and it seems to be a potential of our ability for balances forms of emotional regulation. That means to boost your mood and stay on top of your mental health. If you're worried about your symptoms, or if they are getting worse, contact somebody who is specialized to deliver help (physiotherapy, or for psychological support such as cognitive behavioral therapy (CBT)).

12. Keep control and sense of coherence

At first it is to recommend keeping the "Health Locus of Control" internal. That means, control your thinking and behaving in this matter and learn to have some easy health control techniques in action (like weight, body mass index, blood pressure, pulse and %SpO2 (blood oxygen)). The Health Locus of control concept of Wallston (1992, 2004), Wallston & Wallston (1978) and of Wallston, Wallston and DeVellis (1978) recommend orienting not only on external control of health. The amount of internal control in questions of health is important and brings the Banduras (Bandura, 1977) self-efficacy model und Rotter's locus of control model into the circle of mediators of health in a self-regulation model approach.

- a) A reduction of external health locus of control beliefs ("I can't do anything like that") or
- b) Do not allow powerful others to control the thinking ("Only regular visits to the doctor with tests and a vaccination can help me")

The health stabilizing principle should be: Keep the conviction of control for health action to yourself. The health locus of control belongs in your hand, like the wheel of driving in a car belongs in your hand.

And secondly, we have to preserve the sense of coherence. According to the concept of salutogenesis (Antonovsky, 1979, 1987) the root of health lies in three things: Firstly, it is important not to experience one's own world as chaotic, but to be able to explain external and internal events to oneself. Second, it is important to be convinced that you can cope with the tough demands of life with your own strength and / or outside help. And thirdly, it must be experienced as meaningful to deal with difficult life experiences. We can work on building this attitude - and thus become psychologically stable.

Antonovsky's approach—first presented in his groundbreaking book, "Health, Stress, and Coping" - is to uncover the psychological, social, and cultural resources that people can and do use successfully in resisting illness. In that earlier book, Antonovsky (1979) showed how a "sense of coherence," or way of making sense of the world, is a major factor in determining how well a person manages stress and stays healthy. Antonovsky (1987) shows on the ideas outlined in "Health, Stress, and Coping," how the sense of coherence affects health. He brings together health and illness in a health-disease continuum and shows their relationships to the sense of coherence concept. He demonstrates the clear neurophysiological, endocrinological, and immunological pathways between the sense of coherence influences and health outcomes.

13. Maintain daily routines that have an anti-corona effect

Every person develops daily routines in everyday living. This makes life easier, structured and reduces decisional conflicts. In crises times the daily routines can be interrupted. It's possible by thoughts, emotions and difficulties to stay on planned behaviors. Therefore people should maintain the daily routines that they have had and try to find new ones that have an anti-corona effect.

Daily routines with anti-corona effects can be:

- Having a clear daily working routine, it can be in home office or in office
- Calling with telephone if necessary and speak some words about your feelings and doing
- Writing the daily log, the email post and do from time to time video telephony with colleagues
- that is, it is important do find out the most individually effective anti-dot.

5 Conclusions

The mental health impact of the COVID-19 pandemic and containment measures needs further investigation. But we cannot wait on more results of research. Independently of broader scientific knowledge the prevention and intervention programs can already be developed today on the basis of the findings of clinical psychology, psychotherapy, health science and positive psychology

Psychological help is necessary not only in the long Covid symptom reduction in special clinics and treatment units. There is a need for the advertisement and offer of prevention programs for the increase of resilience against the psychological risk factors for people after infection with mild symptoms or people with high amounts of uncertainty against Covid. Let us start to develop good approaches which can sustain the resiliency of people. It is a start with learning by doing.

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Health Clinic Adaptation During Covid 19 Pandemic: A Case Study of A Small Frontline Clinic in Yogyakarta-Indonesia

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Abstract. Covid-19 pandemic has caused many constraints in the operation of many frontline health clinics in Indonesia. These constraints have pushed for adjustments (flexibility and change) in the work systems of these clinics. Such clinics are called Inpatients Pratama Clinic (in Indonesian), which literally means the frontlines of health services directly accessed by the people. This study aims to deeply understand the adjustment of a Pratama Clinic during Covid-19 pandemic. It used the qualitative method with a single case study design. The subjects selected were determined based upon the objectives of the study; they included 3 nurses, 2 doctors, 1 midwife, 1 front officer and 1 director of clinic. The subjects selected were the employees directly interacting with the patients in expectation that this study can obtain a comprehensive view on the adjustment of the clinic during Covid-19 pandemic. The data obtained were analysed through content analysis and continued comparison to find the themes and category of themes from the subject narrations. The results of this study showed a description of adjustment of the Clinic and its surviving strategy during Covid-19 pandemic. The findings are summarized in the following themes: the initial adjustment in the beginning of Covid-19 in Indonesia, the impacts of Covid-19 pandemic experienced by the clinic, the broader adjustment towards the impacts of Covid-19 pandemic, the surviving strategy used by the clinic, the factors contributing to the effectiveness of strategy, and strategy implementation results.

Keywords: Frontline Clinic Adjustment, health workers, Covid-19 pandemic

1 Introduction

1.1 Covid -19 pandemic crisis

Covid-19 pandemic has caused a wide-scale crisis that creates enormous uncertainties, and thus psychologically it triggers a sense of disorientation, feelings of loss of control, and emotional disturbances (McKinsey & Company, 2020). In addition, it also has a major impact on business sectors, one of which is in health services. One of those affected during this pandemic is the Inpatient Pratama Clinic that we studied. The Clinic that we studied is a family owned clinic that was built in 2016 and is located in Bantul, one regency in the southern district of Yogyakarta. During the current pandemic, Bantul was declared as the red zone because it has experienced a significant increase from 20.129 Covid cases on June 28,

2021 into 20.771 on June 29, 2021, so it has broken a record for adding 642 cases, the highest number since the pandemic (AntaraNews.com, June, 29, 2021). During the current Covid-19 pandemic, out of 9 Inpatient Pratama Clinics in the area, there are only 3 clinics that are still serving inpatient care. One of the clinics that still provides 24-hour service and inpatient care is the clinic that we studied.

Based on the results of initial interviews with 3 participants, namely the director of clinic (W, female), midwife (A, female), and nurse (D, female), it was found that during the Covid-19 pandemic there was a decrease in outpatients from 75 patients per day, to currently only 25 patients per day. Therefore, the number of hospitalized patients has also decreased. This affected the financial stability of the clinic. An increase in anxiety was also felt by the management and all employees because one of the administrative employees was tested positive for Covid-19 and one of the inpatients who had previously been declared non-reactive Rapid Antibodies had shown symptoms of Covid -19.

According to the clinic manager, the pandemic has created a change in the atmosphere of the clinic, where employees distrust each other, lower confidence in providing services, and a feeling that the company does not provide necessary support for employees. However, this condition does not affect the quality of the service because clinical quality improvement is still being carried out and services are still effective. Based on the results of the initial observations, it was also noted that during their presence in the clinic environment, employees were seen wearing masks, face shields, and hazmat. Then for inpatients, they must undergo a rapid test before the treatment process, and the disinfection process is carried out when there are reactive patients with Rapid Antigens or Antibodies.

The current Covid-19 pandemic crisis conditions require organizations such as the local inpatient clinic to adapt to new habits, so that protection factors need to be considered to keep the good performance of health workers (Jacobides & Reeves, 2020; Hassannia, Taghizadeh, Moosazadeh, Zarghami, Taghizadeh, Dooki, Fathi, Navaei, & Hedayatizadeh-Omran, 2020). In addition, in order for the organization to survive, change or new policies need to be made (Sugito, in Hakim & Sugiyanto, 2018). Park (2021) explained that the development of a crisis management plan can help organizations survive and carry out the recovery process through timely response and the implementation of proactive strategies by requiring organizations to take a series of decisions in uncertain circumstances, by showing appropriate responses to crisis events, and by eliminating risks and minimizing their negative impacts.

1.2 Research Purpose and questions

In the previous studies, literature on management discussed much about the steps in identifying crises; determining alternatives; implementing solutions and evaluating results. However, a study of small organization (i.e. frontline inpatient health clinic) adjustment during a crisis, namely Covid pandemic, has never been carried out. So we are interested in examining more deeply how the clinic adjusts and survives the Covid-19 pandemic crisis. Based on the research objectives, we explored the following questions: What was the clinic condition like before the pandemic?, What is it like to work during the Covid-19 pandemic? What are the impacts on the working conditions? What strategies are used to overcome organizational conditions during the Covid-19 pandemic? and what factors contribute to the strategy effectiveness? What are the policies made by the clinic to support the work of the service employees namely the doctors, nurses and the administration staff?

2 Literature Review

In the current Covid-19 pandemic, health workers have a high risk of experiencing psychological problems such as stress, irritability, fear, panic, anxiety, and depression (Neto, et al, in Said & El-Shafei, 2020; Lai, Ma, Wang, Cai, Hu, Wei & Hu, 2020; Nasrullah, Natsir, Twistandayani, Rohayani, Siswanto, Sumartyawati, Hasanah, & Direja, 2020; Zhu, Sun, Zhang, Wang, Fan, Yang, Li, & Xiao, 2020; Chew, 2020). This is caused by perceiving the risk of viral transmission to self and family (Kusumawardani, Nurika, & Luthfiyana, 2020; Temsah, Al-Sohime, Alamro, Al-Eyadhy, Al-Hasan, Jamal & Somily, 2020). Several things that trigger an increase in anxiety and depression include the lack of PPE (Personal Protection Equipment) availability, lack of adequate information on the spread of the virus from the beginning of the Covid-19 pandemic, fear of exposure and infection, and the possibility of transmitting it to others. All of these have an impact on the quality of the service (Liu, Cao, Liang & Chen, 2020; Rosyanti & Hadi, 2020; Handayani, Kuntari, Darmayanti, Widiyanto, & Atmojo, 2020; Jiang, in Maben & Bridges, 2020; Otgonbaatar, Ariunaa, Tundevrentsen, Naranbaatar, & Munkhkhand, 2020).

The uncertain conditions during the pandemic can disrupt operations and pose a threat to the stability of health services organizations (Coombs, 2007) such as hospitals and clinics. Thus adaptability and resilience need to be considered as critical to protect, support, and reduce psychosocial risk factors (Carbajal, Boluarte, & Soto, 2020) that can hinder the

function of the organization. Crisis management is an ongoing process in understanding the potential of crises occurrence through internal and external conditions, understanding the mobility of resources, and understanding the available capabilities to prevent crises. This is done to keep operations continuing to run and to produce optimum work results by implementing various steps to survive and understand all of the factors that result in an uncertain situation during the Covid-19 pandemic (Ozili, in Park 2021). Therefore, strategies need to be formed to deal with the times of crisis by focusing on every process that is carried out in the organization (Obrenovic, Godinic, Tsoy, Khan, & Jakhongirov, 2020).

Coombs (2011), explains that crisis management does not only stand as a single event, but is divided into 3 phases: 1) the pre-crisis phase, focusing on prevention and preparation, 2) the crisis response phase, dealing with the crisis and how to rebuild conditions by the affected organizations, 3) post-crisis phase, prepare and fulfill commitments made during the crisis phase including the provision of follow-up information. Based on the results of research by Al Eid & Arnout, (2020), there are steps in managing a crisis, namely: 1) Defining a crisis and determining its causes, 2) Defining real conditions, 3) Determining strategies in dealing with and planning for crisis resolution. Hølge-Hazelton, Kjerholt, Rosted, Hansen, Borre, & McCormack (2021), explains that the main ingredients of successful crisis management during the Covid-19 pandemic are: 1) Communication, 2) Coordination and decision making, 3) Collaboration, and 4) Attention.

3. Entry to the Research

This research was conducted by two main researchers. First, Dzikri Hijirahmah is the last child of 4 siblings. She is a graduate student of the Masters in Professional Psychology program who focuses on Industrial and Organizational Psychology, so she does a lot of outdoor activities and needs to implement physical distancing to maintain her health during the pandemic. Her entire family is an extended family that consists of 17 people, making it a challenge to minimize the transmission of the Covid-19 Virus. The second researcher, Emi Zulaifah is a mother of 5 children and the current Covid-19 pandemic condition is a challenge for her to assure that her family members are all well and safe. In addition, she also minimized visits to health services to avoid the transmission of Covid-19. Departing from this background and our concern for paying attention to news about the current state of the Covid-19 pandemic, we propose a study related to how health services, especially the Pratama

Inpatient Clinic, survive in facing challenges during the pandemic.

4. Method

This study uses a qualitative method with single case study design for examining a bounded system. The single case study approach was chosen by the researcher because this study explored data from the surviving Pratama Inpatient Clinic in the city of Bantul-Southern Yogyakarta-Indonesia. The subjects selected were determined based upon the objectives of the study; they included 3 nurses, 2 doctors, 1 midwife, 1 front officer and 1 director of clinic. All subjects who participated in the study worked in the clinic during the Covid-19 pandemic, experienced changes that occurred in the clinic, and experienced challenges in dealing with the Covid-19 pandemic. Data collection was done by observation and interviews. The data collection and analysis includes several steps. First, we prepare and process observation and interview protocol which must be submitted to the Board of Ethics at Universitas Islam Indonesia. In the second stage, we set an appointment date and asked permission to also observe the situation at the location and on the activities during the day.

5. Data Analysis

In the data analysis process, researchers did quick reading on the verbatim to begin with, to get an initial understanding regarding the responses, and to familiarize with the terms used as well as the initial meaning units that can be found from the narrations. Then in the second stage, we did coding based on the meaning units found from the subject's description. In the third stage, the coding process is carried out by further extraction, comparing and contrasting the codes so that distinct subcategories are obtained. In the fourth stage, further abstractions are pulled from the subcategories obtained, and more comparisons are done to see the differences of one category of theme from another. Finally, in the fifth stage from the themes that are founded, a pattern of relationship is identified resulting in a model of a conceptual explanation. Based on the recommendations of Strauss and Corbin (in Rezaie, Hosseini, Rassafiani, Najafi, Shakeri, & Khankeh, 2014) and Levitt, Bamberg, Creswell, Frost, Josselson, & Suárez-Orozco (2018), we lists several examples of data analysis in table 1.

Table 1. Example of Extractions of Meaning Units into Codes, Sub Categories, and Categories from Raw Data

Meaning Unit	Code	Sub Category	Category
At the beginning of the announcement that the Covid-19 virus had entered Indonesia, all employees were required to wear masks and to be careful when dealing with patients (WW, P, B15-B22)	The use of masks and carefulness at the beginning of the pandemic	Endorsement of basic covid protocols	Initial Adjustment
After the covid positive results from tested employees were known, the number of patients has decreased because there is a temporary limit of service time (DE, P, B595-B600)	The impact of the presence of covid case	Decrease in the number of patients	Impact of the pandemic
The clinic facilitates masks, hazmat, and face shields for employees (RDW, P, B396-B399)	Provision of PPE for Employees	Organizational support adjustment	Broader Adjustment to the impact of the pandemic
During the pandemic, there are restrictions on employees on the afternoon shift to reduce clinic costs related to salary (WW, P, B1394-B1399)	Employee schedule change (reduction working shifts)	Financial adjustment	Broader Adjustment to the impact of the pandemic
Management calms employees by explaining the condition of the clinic and the purchase price of masks (DE, P, B748-B751)	Explaining clinical conditions to employees	Management openness	Factors that Contribute to Strategy Effectiveness
Employees provide mutual support by always reminding them to use PPE (TW, P, B525-B532)	Remind each other to use PPE	<i>Mutual support</i>	Factors that contribute to strategy effectiveness

6. Results and Implication

Based on the grouping of themes and an analysis on the relations of the themes, an illustration of stages of the clinic adjustment during the Covid-19 pandemic was obtained. Figure 1 below illustrates the findings from the data analysis.

6.1 Initial Adjustment

This takes place before Indonesia declared the nation as “in Covid pandemic” state. Pratama Inpatient Clinic mapped the problem by understanding the conditions and

impacts that the Covid-19 virus could cause. Since the outbreak of the Covid-19 Virus in Indonesia in March, the clinic has made early adjustments by requiring employees to wear masks, collect information related to Covid procedures, and implement them.

6.2 Direct Impacts after Covid Outbreaks enter Indonesia

The Covid-19 pandemic has had its own impact on the Inpatient Pratama Clinic, such as a decrease in the number of patients visiting the clinic, thus affecting the finances and stability of the clinic. Then the current uncertain conditions can increase stress and anxiety in medical and non-medical employees. This causes a decrease in performance, fatigue, difficulty sleeping, and physical symptoms as signs of stress, such as sore throat.

6.3 Broader Adjustments

Pratama Inpatient Clinic initiated further adjustment in the form of service adjustments, organizational support adjustments, and financial adjustments. First, the adjustment of services is carried out by: 1) Updating the flow and rules of outpatient services. 2) Service development response to people's needs during Covid (such as service for swab test. 3) Renewal of the service space and area/ Place arrangement 4) Updating the rules for inpatient services 5) Ensuring the management of reactive patients with Rapid Antigen or Antibody Tests, by making SOPs. Second, adjustment of organizational support, Eisenberger. (in Baliartati, 2016) explains that organizational support can contribute to employee welfare, so as to foster positive perceptions of the organization. During the current Covid-19 pandemic, the organizational support provided by the clinic is in the form of PPE (Personal Protective Equipment), vitamins, as well as providing training to improve Rapid Antigen Test skills for analysts, doctors, and nurses. Third, financial adjustments, the clinic leader said that during the pandemic, guard shifts were reduced, minimized the demand for gowns (hazmat), and eliminated the Rapid Antigen facility. The decision was made by the leadership to minimize clinic operational expenses. Fortin, Jansen, & Klontz (in Fox and Bartholomae, 2020), also explained that financial planning can help prepare for changes and conditions of uncertainty during the Covid-19 pandemic.

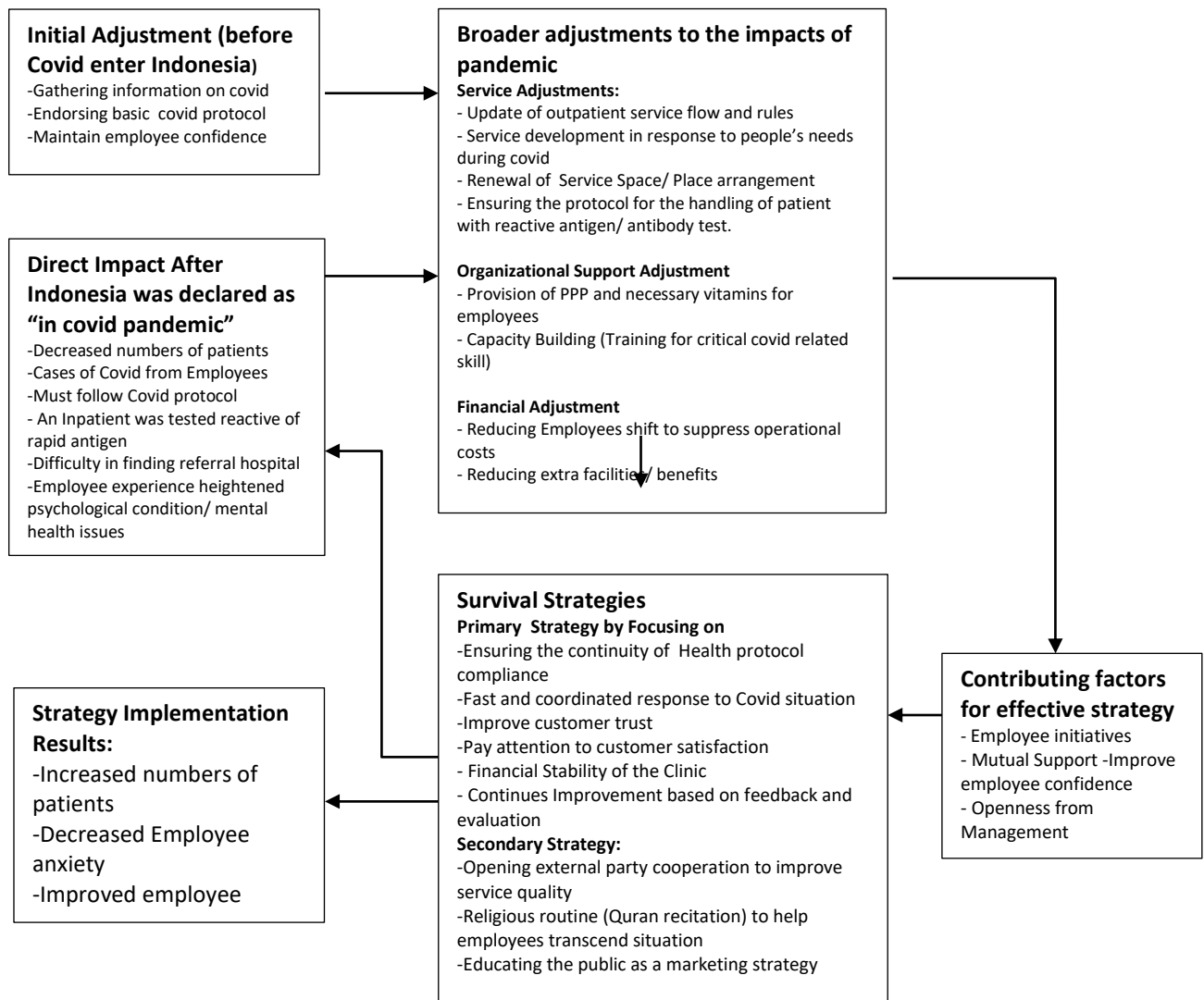


Figure 1. A Model of Frontline Clinic Adjustment during Pandemic

6.4 Survival Strategy

In this phase, the Clinic began to change the pattern of strategies. Based on the data, it is found there were two categories of survival strategy, namely: primary strategies and secondary strategies. The description of the primary strategy during is as follows: 1) Ensuring the implementation of health protocols; 2) Fast and coordinated response to conditions and obstacles being experienced, by the leadership. It also appears in the formation of a tracing team, whenever there is employee who is confirmed positive for Covid-19 3) Increase customer trust, by online marketing, conveying information related to conditions, and service rules; 4) Pay attention to customer satisfaction, by applying satisfaction coins and feedback 5) Pay attention to the financial stability of the clinic by prioritizing the critical

needs 6) Continuous improvement is based on evaluation, this is done through meetings attended by employees and management. So the leader needs to give attention and opportunities to team members to participate in solving a problem.

In order for the main strategy to run effectively, secondary/ supporting strategies are developed, namely: 1) working with external parties by seeking PPE assistance, collaborating with Indonesian Red Cross, hospitals, health centers for the tracing process, vaccination of employees, and referral of reactive patients for rapid tests Antigen/Antibody; 2) Performing religious routine for employees by reading verses of the Qur'an, and by requiring all employees to take turns to give Islamic reminder, as a way to strengthen the employees by transcending the difficult situation 3). Educating the public as a marketing strategy.

6.5 Factors that Influence Strategy effectiveness

In addition to supporting strategies, factors that contribute to strategy effectiveness are also needed in this phase to survive in times of crisis. The following are contributing factors, namely: 1) Mutual support between employees and management 2) There is an initiative for employees to complete PPE and to buy their own vitamins so they can maintain their health and keep working. 3) Management openness regarding clinical financial conditions. After the strategies were implemented, it began to show results on the clinic performance. The results showed that there was an increase in the number of patients visiting the clinic, a decrease in employee anxiety, improving employee health, increasing service effectiveness, making it easier for patients to understand and follow health protocols.

7. Conclusion

Based on the five themes that have been explored from the subject's narration, the positive impact of the clinic adjustments is seen in an increase of the number of patients, a decrease in anxiety, an increase in service effectiveness, and an increase in employee health. This is achieved by initiating broader service adjustments, organizational support adjustments, and financial adjustments. Then the strategy to survive during the covid-19 pandemic which consists of the primary and secondary strategies is carried out so that operations and services continue to run. The achievement of strategy effectiveness cannot be separated from the contributing factors, namely: mutual support between management and employees, employee initiatives to independently equip themselves with PPE, and management openness regarding the condition of the clinic. This research is an early step to more comprehensive surveys and

studies that attempt to describe organizational (frontline health clinics) adjustments during critical events such as the Covid-19 pandemic. The findings from an in-depth study will be useful for every organization in understanding thoroughly the factors and the dynamic of surviving a crisis. This study can serve as an example in understanding a similar situation with different organization types, such as small and medium enterprises in Indonesia. This understanding is important especially in our effort to support small organizations in their survival in a difficult context such as pandemic or in crisis situation with a lesser extent that force the organization to adapt for their continues operation.

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III

Stress and mental health promotion

Clinical and psychological peculiarities of bodily self-identity and self-perception disorders in young individuals

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Charkiv, UIPE Ukraina

Abstract:

Body image is an important component of self-identity. Body image is a person's perception of the aesthetic and sexual attractiveness of his or her own body. The concept of "body image" was introduced by the Austrian neurologist Paul Ferdinand Schilder in his book *The Image and Appearance of the Human Body*. Human society at all times has attached great importance to the beauty of the human body, but also a person's perception of his own body may not meet society's standards. Body image is a mental representation of one's own body as perceived by the subject. Self-identity and self-perception in young people is particularly vulnerable in the context of the ongoing pandemic worldwide.

It is important to note the distinction between the concepts of "body schema" and "body image," which are often misused and confused in the literature. Body schema refers to an unconscious internal representation, a set of information about the structural organization of the body, its dynamic characteristics, and the current and changing position of its parts. This representation plays an important role in the processes of maintaining and regulating posture, as well as in the organization of movements.

Psychometric analysis of body image, quantitative measurement of the affective attitude to this image, the cognitive-behavioral significance of the assessment of one's own appearance in the actions of a person, constructive or destructive body changes.

We used the Self-Relationship Questionnaire (SRQ) constructed in accordance with the hierarchy developed by V. Stolin. V. Stolin's hierarchical model of self-esteem structure. This version of the questionnaire allows us to reveal three levels of self-esteem which differ in the degree of generalization. The results show the necessity to help young people in modern conditions.

A driver improvement program for stressed drivers

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1. Basics of stress

The term stress describes a psychophysical state of regulation of humans, which occurs for an individual when the personal human-environment relationship has reached a contradictory quality that can no longer be compensated with behavioral routines and automatic reaction mechanisms (Reschke and Schröder, 2010). In the human experience, stress is reflected in the form of a need threat, the destabilization of perception and information processing capacities and the stressful experience of coping with requirements. Stress describes a problem situation that requires a switch from the emotion-controlled behavior level to cognitively organized and reflected actions.

Stress factors are omnipresent in many professional groups. In recent years there has been a considerable increase in the demands and stresses in the world of work. Over time, several trends are striking and worrying: First, strong deadline and performance pressure is mentioned as a stress point. The second stress point involves being disturbed and interrupted at work. The third point is that you have to supervise different jobs at the same time and work on them very quickly (multitasking). These trends are also clearly visible among employees in traffic and transport.

These professional groups also include professional drivers. They are mainly traveling alone in their truck and have little direct personal contact. There is often a lack of cohesion and mutual support among colleagues. In order to be able to counteract all these negative factors, it is all the more important to develop specific preventive health promotion programs for professional drivers or those who drive a lot and put them into practice. Training on time and stress management should be an integral part of the training and education of professional drivers.

Between 2009 and 2013, a stress management program was developed at Leipzig University especially for professional drivers (Kranich, Kulka & Reschke, 2008). The program builds on the fundamentals of the general health promotion program “Mastering Stress Optimistically” (Reschke and Schröder, 2010) and is a target group-specific variant of the same.

2. Stress of drivers - a target group orientated prevention program

This chapter first describes some stress factors and the associated stressful experience for professional drivers. Then the theoretical concept of the program is presented.

2.1 The professional driver experiences stress

Based on the transactional stress model by Lazarus (1974), it can be assumed that the stress experience always arises from the interaction of personal and environmental variables. In accordance with this assumption, these variables are presented in the following chapter in the form of activity-related (environmental variables) and the personal stress factors of the stressful experience of professional drivers (Evers, 2009).

2.2 Activity-related stress factors in the experience of stress

The working conditions of the professional driver are determined by a large number of different factors. The Federal Employment Agency (2013) describes this as follows:

“The main workplace of professional drivers is the vehicle. Often the driving routes are long, so that the rest periods are spent far away from the place of residence. You work independently, but are in contact with your operations center. You are mostly traveling alone, with longer tours possibly with a second driver. Professional drivers spend most of the day sitting down. They operate the vehicle safely, prudently and with foresight in order to avoid dangerous situations as far as possible or to identify them at an early stage. Even if loading aids for loading and unloading vehicles make their work easier in freight transport, they sometimes have to pack a lot. A sense of responsibility and diligence are essential in their job, because they are responsible for ensuring that goods are properly loaded and that their vehicle is roadworthy.

You have to cope with time and deadline pressures as well as with unfamiliar surroundings. Foreign language skills are useful abroad. Since professional drivers carry out minor maintenance work on their vehicles themselves, they come into contact with lubricants such as oil and grease.

In order to avoid accidents, professional drivers adhere to the occupational health and safety regulations. Driving times and rest times are regulated by law across the EU; these must be adhered to and recorded. They transport passengers in passenger transport. In contact with customers, good manners and, if necessary, assertiveness are important.

Professional drivers work in shifts during the day and night, and depending on government regulations, also on Sundays and public holidays. Unpredictable events such as traffic jams or storms have an impact on their working hours. In international long-distance transport, professional drivers are often on the road all week and only come home on weekends. During the week they therefore often sleep in rest areas or parking spaces in a cabin of their vehicle." Schäfer and Steiniger (1989) have specifically described risk factors for the group of professional drivers. These are shown in an overview in Table 1.

Table 1: Risk factor groups for truck drivers, Schäfer and Steiniger (1989)

Risk factors	Loads	Examples
Workplace associated	Long or unfavorably located working hours due to the workplace actual driver activity Additional tasks, high environmental pollution Inconveniently designed driver's cab Dealing with dangerous goods	Work overtime Fatigue due to sustained attention Noise, exhaust fumes Ergonomic problems
Risk-factors associated to the organization in the enterprise	Organization of all parts of business operational performance organization Personnel selection Personnel deployment work atmosphere	Climate and work flow by good structuring of work
General risk factors outside of the workplace and the enterprise	hazard in road traffic Impairment in private life Restrictions in the social and cultural area.	Increased willingness to take risks Problems with switching off from work

2.3 Personal factors for experiencing stress

In addition to the work-related stress factors, the study by Evers (2009) also shows personal stress factors for professional drivers. These include socio-demographic, professional biography and dispositional factors. Fastenmaier, Gestalter, Kubitzki, Regener and Hute (2008) postulated that the stress experience increases with increasing age. In addition to the more experienced physical and emotional stresses, the learning and relearning processes and performing secondary activities also become more difficult for the driver.

The family life situation acts as a protective factor when creating a harmonious relationship, whereas family conflict situations become an additional source of stress for the driver (Herrmann, 2004).

Professional qualifications and experience are important predictors for an adequate handling in the fulfillment of upcoming tasks. Appropriate vocational training is a decisive advantage here. However, most professional drivers come to work as so-called “lateral entrants” and are therefore not adequately equipped with the competencies and skills that this profession would actually require (Herrmann, 2004).

Ellinghaus and Steinbrecher (2002) showed that a longer driving routine has a positive effect on dealing with situational stress. Frequent drivers experience adversity in road traffic as less stressful than drivers who drive less a year.

Studies also make it clear that truck drivers with type A behavior perceived their professional and driving situation to be more stressful than truck drivers who did not show any pronounced type A behavior. Drivers with type A behavior showed an increased propensity for conflict in road traffic and had more traffic violations (Lach, 1999; Strohbeck-Kühner, Lach and Mattern, 2001). People with type A behavior are characterized by “striving to achieve, competitive thinking, impatience, perfectionism, a high sense of responsibility, hectic rush, willingness to be aggressive and strong goal orientation” (Wagner-Link, 2002).

Matthews (1996, 1997, 2002) also postulated in his transactional driver stress model that some personality styles are more prone to driver stress. The personality trait “susceptibility to driver stress” from the Driver Stress Inventory (DSI, Matthews, Desmond, Joyner, Carcary, & Gilliland, 1996; Matthews, Desmond, Joyner, Carcary, & Gilliland, 1997) is particularly emphasized.

2.4 Traffic psychological assessment of driver’s stress

Traffic psychological diagnostics has developed considerably in recent years. In addition to personality diagnostics for conspicuous driving behavior, attention and vigilance measurement, the area of stress and demands has also become diagnostic objects of investigation. Procedures to be mentioned in this context are in particular:

- Driver Stress Inventory (DSI)
- Driver Coping Questionnaire (DCQ)
- Driver Behavior Questionnaire (DBQ).

2.5 Theoretical concepts of the stress management program "Mastering driver's stress optimistically"

The theoretical concept of the program is explained in more detail below. The development and objectives of the program are presented. Then information on the target group, possible uses of the program, scientific principles and content are shown. Notes on the qualification of the course instructor, the methodology and an overview of the individual modules are given.

2.5.1 Program development

The stress management program "Optimistically coping with driver (er) stress" is a target group-specific further development of the program "Optimistically coping with stress" (Reschke and Schröder, 2000). The development work on the present stress program was carried out by Rademacher (2009), Lessing as well as by Reschke and Kranich in the years 2009 to 2013.

2.5.2 Objectives of the program

The aim of the program is to show the participants of the course how to adequately deal with stress and stress in road traffic and to practice coping strategies. They should be enabled to drive in an adequate, situation-appropriate and safety-promoting manner. These interventions are thus directed at the personal level. The program does not contain any approaches to a proportionate prevention of stress in road traffic, but it does sensitize the participants to it. The aim is to impart the broadest possible repertoire of stress management skills for road traffic to the participants.

Single goals:

- Psycho-education, information, counseling
- Generation of motivation to change
- Individual problem analysis
- Recognizing and changing habits
- Learning to control oneself through introspection and self-verbalization
- Exploration of dysfunctional stress management behavior
- Resource activation and analysis
- Detection of risky behavior
- Dealing with conflict situations
- Identification of alternative behavior
- Teaching relaxation techniques
- Transfer protection and relapse prevention

2.6 Description of the target groups

The target groups of the program "Optimistically coping with driver (er) stress" include all frequent drivers (e.g. commuters) and above all professional drivers. These are, for example, truck drivers in local and long-distance traffic, bus drivers, taxi drivers, post and parcel delivery services, driving instructors, etc. This program is also intended for all drivers who have become suspicious of delinquent driving behavior, but also for drivers who deal adequately with Want to learn to experience stress in traffic, be applicable. Each participant should have adequate communication skills.

The program is not suitable for participants who are acutely mentally ill. Likewise, people with a strong tendency towards deviance and inadequate awareness of rules and defenses against changes in behavior and a lack of openness to learning in groups should not belong to the target group.

First and foremost, the program is an aid to stressful drivers who have a personal interest in changing their situation. It is suitable for the use of special traffic psychological intervention measures (for example, preparatory measures for the medical-psychological examination, the so-called MPU) for drivers who are delinquent in traffic and who have problems with their points. It can also be used as part of a rehabilitation measure for this group of drivers. Furthermore, the program can be used in the preventive health-promoting area, which is an important aspect for drivers.

In addition, the integration of individual modules for statutory training such as the Professional Driver Qualification Act (BKrFQG) is possible. The preventive approach of the program is particularly suitable for use in training and further education for professional drivers.

2.7 Scientific basics of the program

The program aims to change habit-related, dysfunctional stress management behavior in road traffic. The theoretical basis are modern interactional and resource-oriented stress theories such as those of Lazarus (1966, Lazarus & Folkmann 1984, Lazarus and Launier, 1987, 1981) and Hobfoll (1988, 1989). At the same time, the program is based on Antonovsky's model of salutogenesis and Hacker's theory of action.

The latest findings in sleep and monotony research are also part of the program. Together with research results on the subject of trucks by Kiegeland (1997), they form an important

basis for dealing with stressful situations on a daily basis, especially in the field of professional drivers.

Approaches from occupational health psychology, such as the model of negative effects of stress (Schröder, 1991), have also been taken into account in the concept of the program.

2.8 Contents of the program

The main focuses of the psycho-educational program include:

- a detailed stress analysis
- emotions while driving
- Resources and solutions related to problematic behavior in dealing with stress
- Transfer of what has been learned into future situations.

Another focus is the topic of time management. Here the participants are instructed to recognize their deficits and to learn how driving time can be organized more effectively. In addition, general stress management methods such as progressive muscle relaxation according to Jacobsen (progressive relaxation, 1990) and breathing meditation techniques according to Benson (1976) are learned. Self-control techniques, such as stop signals in the event of anger and fatigue and raising awareness of self-awareness, are an important part of the course. These should have a positive influence on the associated problem-solving training and conflict resolution.

The drivers are made aware of the connection between emotional experience and driving stress using various exercises. Overall, the participants learn a rich repertoire of techniques for reflecting on and changing the stressful work experience.

2.9 Qualification of course instructors

The work as a course instructor requires a degree in psychology (diploma or master's degree). Specialist psychologists for traffic psychology or professions with additional traffic psychological qualifications, such as officially recognized traffic psychological consultants, can also act as course instructors. In order to be able to ensure an optimal implementation of the program "Optimistically coping with driver stress", a course leader training of the corresponding program with a scope of 16 course hours is necessary.

2.10 Methodical approach

The methodological concept of the program includes behavioral and systemic approaches and principles. It is a resource-oriented, time-limited stress management program related to the everyday work of drivers. The individual exercises are intended to promote the communicative exchange between the participants in dialogue. The active cooperation of all participants (peer involvement approach) is expected. The course leader always acts as the moderator of the course. Furthermore, the course is characterized by a participant-centered procedure, which is structured by exercise specifications. The course program has a modular structure. This enables a flexible and participant-centered way of working.

2.11 Program overview – the modules

The following section provides an overview of the program “Mastering driver stress optimistically” and its components.

Table 2: Overview of the program and its components

Basic Modules	Single module structure
First module Stress Analysis	I. My stress while driving II. My stress while driving III. My driving stress
Second module Emotions	IV. Everyday driving V. Negative feelings come along VI. Positive feelings go with you
Third module Resources and Solutions	VII. Strengths, goals, resources VIII. Relaxation, humor
Fourth module I - as a driver	IX. I - In the past X. I - In the present XI. I - In the future
Fifth module Transfer and Relapse Prevention	XII. Module for changing driving practice

3 Evaluations

3.1 Goals of evaluation and assessment tools

The aim of the present formative evaluation was to assess the feasibility and practicability of the stress management program for drivers. Five different questionnaires were used as measuring instruments. In addition, the participants were given the opportunity to express

ideas and comments on the ongoing meetings as oral feedback. The questionnaires used are explained in Table 3.

Table 3: Presentation of the questionnaires used for the formative evaluation

Questionnaires	Content
LKCS - Short stress test Reschke and Mätzchen (2020)	seven statements with a rating scale of 1 (does not apply) to 4 (applies exactly), recording of the stress profile for the seven dimensions of chronic stress (loss of control, loss of meaning, anger and dissatisfaction (frustration), sleep disorders, inability to recover, specific stress issues by unsolved critical life events, lack of social support, completed by the participant in the first and last course unit
Course analysis questionnaire with closed and open answer format	Course analysis questionnaire with closed and open answer format Information about the person and how they became aware of the seminar Topics: What did the course bring to the participants, what important information did they receive and how satisfied are they with the way the course content was conveyed three sub-questions each with a five-point rating scale and one question with an open answer format for other comments, requests and suggestions for improvement completed by the participant after each course unit
KUSTA	short questionnaire for mood and affect (Binz and Wendt, 1985) Information about mood, activity, tension / relaxation, joy, fear, anger, disappointment / hurt looking back on the day or the session additional information about particularly agitated experiences and night sleep of the participants, this serves as a basis for the outlook of an effect evaluation on the mood of the entire course, completed by the participant after each course unit
Feedback form	Participant feedback “last word” from the participants three questions with a closed answer format and a four-point rating scale from fully applies (1) to not applicable (4) three questions with an open-ended answer format, what did you dislike, what was special and what topics should still be offered, once completed by the participant after the last course unit
Seminar evaluation	Seminar evaluation "Mastering driver's stress optimistically" three questions with an open answer format, sentence completions. Participants provide information about the knowledge gained through seminars, what they will pay particular attention to as drivers in the future and how they will deal with stressful situations when driving a motor vehicle. Completed once by the participants after the last course unit

3.2 Results

This chapter summarizes the most important results of the evaluation carried out. In principle, it can be stated that the intervention program can be carried out in the form conceived. All exercises could be realized very well in practical application.

The structure and sequence of the components of the program proved to be sensible and systematic. The contents of the individual modules are practicable. The given structure, number of sessions and scope as well as the included individual exercises turned out to be realistic.

The use of the course content in the daily life of the professional driver and the acquisition and consolidation of new knowledge were rated positively by the overwhelming majority of the test subjects. The participants can imagine a use of the learned course content and the application of various stress management exercises in their everyday driving.

The very positive feedback from the course participants allows the conclusion that the stress management course "Optimistically coping with driver's stress" can be seen as a very accepted intervention program. The main focuses of the program that were dealt with led to a multitude of new findings among the participants. In this respect, it can be assumed that the program content gives the participants valuable and practicable suggestions and impulses for coping with stressful situations when driving a motor vehicle. It also showed that dealing with stress is an important topic for drivers and that they see it as being positively influenced by adequate stress management methods that are taught in the course. Participants said they learned a variety of new stress management techniques that they will look to and use in future driving situations. They also expressed their intention to change their behavior in stressful situations and to integrate newly learned stress management skills into everyday life.

4. Summary

In this article, the concept of the intervention program "Optimistically coping with driver stress" was presented. This is a program that builds on the fundamentals of the general health promotion program "Optimistically coping with stress" (Reschke and Schröder, 2010) and has professional drivers in particular as its target group. This profession is associated with considerable work-related and personal stress factors for experiencing stress. The aim of the program is to show this professional group how to adequately deal with stress and stress in road traffic and to practice stress management skills. It therefore comprises various building blocks and modules, from stress analysis to relapse prevention. In a formative evaluation it was possible to prove that the program in its conceived form is practicable and can be carried out in this way. The feedback from the participants on the content and implementation of the program was positive; the practical relevance of the intervention content was confirmed by the participants.

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Mastering parenting stress optimistically: A positive psychology – positive education intervention

Franziska S. Stoeber

Abstract

Parents face multiple demands upon their resources. When these demands are increased by single parenthood or economic strains on the family, the birth of a younger sibling, special educational needs of a child or, most currently, home schooling, parenting can be experienced as particularly stressful.

We present a parent training program that aims at increasing the resilience of parents by teaching specific stress reduction techniques on the one hand and by fostering parents' knowledge of child psychological health on the other hand. The training is based on the established stress management training course "Mastering stress optimistically" (Reschke & Schröder, 2010) and includes specialized modules on parental responsiveness and cognitive behavioral approaches to prevent irrational thought patterns in parents and children alike.

By providing parents with the knowledge and the tools to regulate their own emotions, build psychological resources, reduce stressors and by addressing the particular needs of those who live with children, we aim to contribute to children's long term psychological health.

Most parents actively reflect about the way in which they bring up their children: for example, they may try to repeat the parenting style of own parents or wish to do things differently, they may inform themselves by reading or attending courses or they may act intuitively, or, they may encounter parenting problems and wonder how to solve them. A close look at parents' stress reports reveals that parenting stress is high (Mikolajczak, Gross & Roskam, 2019). In spite of existing models and theories about good parenting practice there is considerable insecurity in adults (Elfström & Ahlen, 2021). Children are exposed to the behavioral consequences of this insecurity. They cease to be the prime focus of parenting, while parenting becomes its own end: parenting for the sake of parenting. Children as the objects, the stones to be moved, the ones to be brought up, to be parented in a certain way.

This parental reflectiveness, on the other hand, is also the first step towards dealing with parenting stress, because it provides the motivation to observe and recognize developmental processes in children and to potentially change parents' behavior.

Parenting stress

In addition to common stress factors like time constraints, multi-tasking, ill-equipped surroundings, lack of resources or funds, financial pressure, demands upon performance (Reschke & Schroeder, 2010), role specific stressors apply to parents. Mikolajczak, Gross & Roskam (2019) reviewed studies about parenting stress and parenting burn-out and identified problems in family functioning and characteristics of parenting style to have large overall effects on particularly low parental resources. Because parents are less able to distance themselves from everyday stressful interactions with their children, the improvement of these interactions needs to be a focus of a stress management training for parents.

For the purpose of this paper, we define parenting stress (adapted from Deater-Deckard, 1998 and Lazarus & Folkman, 1984) as:

The psychological reaction to an individual's appraisal of the balance or imbalance between demands perceived by a parent (e.g. situational demands, financial or time burdens, expectations of others and self) and a parent's resources.

Stress management trainings for parents

This paper posits that parents should lose their own anxiety about fixed rules and move towards recognizing and approaching their child as an individual with needs and motives. They should contingently do so with cooperation, communication and, above all, responsiveness. Young peoples' socialization is fostered best if they are offered reciprocity and being taken seriously by adults who observe and react, who support by providing needed information, structure and explanation, free from acting out of pressure, anxiety or stress. Schulz, Cornelius & Supke (2020), for example, indicate that maternal psychological health and parenting behavior mediates the relationship between children's critical life events and their psychological health in adolescence.

Observe the 4-plus-1-Factor model of health and illness by Schroeder (2003). It posits that health and illness are influenced by emotions, compensating behavior and physiological responses to the balance between demands, values/motives/needs, skills and resources of a person. A stress management training for parents needs to take this into account by providing generic stress reduction approaches aimed at decreasing demands (e.g. an analysis of stressors), by reflecting personal or societal norms/values/needs, by building resources (e.g. social contacts, emotion regulation, identity) and by offering a specific skills training aimed at preventing and reducing parent-child interaction problems.

Poehlmann-Tynan et al. (2019), for example, showed that cognitive behavioral group interventions aimed at parental compassion have a decreasing impact on children’s cortisol levels.

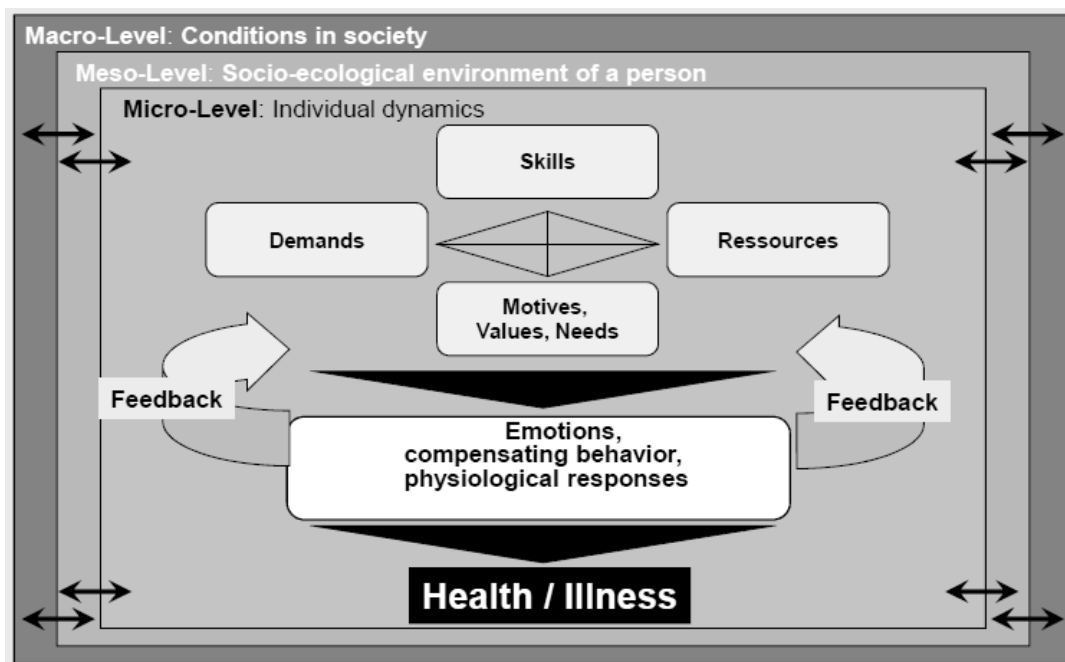


Figure 1: The 4+1 factor-model of health and illness (adapted from Schroeder, 2003)

Positive psychology – positive education

In this training programme, we follow a salutogenetic perspective: to foster the positive and to allow growth in those areas, where resources can be built upon and extended. We use two scientifically formulated, psychological approaches with the help of which, we aim to train parenting skills. These are:

- Responsiveness (adapted from Mahoney & MacDonald, 2007)
- Rational thought patterns (adapted from Stavemann & Bergmann, 2019).

It is our belief that parents ideally learn about both approaches. However, if time constraints exist, learning about responsiveness should be a priority for the parents of younger children, while learning about rational thought pattern applies more to the parents of older children and adolescents.

Parental Responsiveness (Mahoney & MacDonald, 2007)

Originally published as a training programme for parents of autistic children, “Responsive Teaching” teaches parents perceptive and behavioral skills. Parents learn to observe, recognize and acknowledge their child’s developmental state, emotional state, possible

intentions and interests and they learn to engage joyfully in child-directed activities, to take initiative and to create contingencies.

Parents' and children's rational thought patterns

Based on Albert Ellis' idea that irrational thoughts contribute to psychological ill-health, Stavemann and Bergmann (2019) refer to three basic "problems" co-created by irrational thoughts:

- Low frustration tolerance ("I demand that I get ... / I demand that it is easy to ...")
- Low self-worth ("I am worth less than others if ...")
- Existential fears ("I cannot accept that ... is unsafe")

Parents are schooled to understand and model rational thoughts instead of irrational thoughts.

The training programme

It is our belief that all parents should potentially have access to the training programme. Therefore, we aimed at integrating the components outlined above into a stress reduction and stress management training curriculum that is open to all parents in Germany. The existing and publically funded stress management training "Mastering stress optimistically" (Reschke & Schroeder, 2010) provided the blueprint for the course structure. It was important to adapt the generic stress management modules only slightly and to leave the session structure comparable, because these have proven to be economic and effective. Modules parenting skills, responsiveness and rational thought pattern, were newly developed. Mastering parenting stress optimistically is a ten module, weekly group training. Each module is scheduled to last for approximately 90 minutes. Trained tutors instruct parents of either younger children or older children in a friendly, structured, welcoming setting by initiating self-reflection, exchange, knowledge- and skills transfer.

The modules include:

- Module 1: Introduction & stress models
- Modules 2 and 3: Reflecting individual stressors – Part I and Part II
- Modules 4, 5 and 6: Resource training: Responsiveness or Modeling rational thought patterns
- Module 7: Social support
- Module 8: Positive emotions and enjoyment
- Module 9: Management of negative emotions
- Module 10: Identity and future goals

Outlook

Stress management training does not suffice to solve deeply rooted family problems. It is, however, a contribution to parental mental health and to parenting education, which is, at least in Germany, hardly accessible and much needed. It is also a tool to relieve every day stress factors for parents, who deal with the discrepancy between their own parenting ideals and ideas and real life family situations. It can provide a first practical step towards better interactions between parents and children and towards increased resilience in parents. By doing this, it may foster children's psychological health in the long-run. Thus, we hope to establish "Mastering parenting stress optimistically" as a low-threshold, publically funded training course, that becomes "common" and a potentially even a standard part of being a parent in Germany.

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Living with your Stress, mastering its management

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Stress management is a popular concept in modern world as the stress is a subject that all people keen upon.

Master in Stress management is a booklet originally prepared by Professor Konrad Reschke and Harry Schroder (Reschke and Schröder, 2010, 2015). It was a great pleasure that as a fellow researcher and a Sri Lankan I got an opportunity to translate it into a Sri Lankan national language which we call as Sinhala.

This book originally was a result from a long term attempt on facing daily hazels and stress in an optimistic viewpoint. All of you may have faced stress, have tried stress management techniques even some relaxation techniques which may helped you to achieving quick relief from sudden challenges faced in your life. Differentiating your stress and knowing it clearly, coping strategies, setting goals upon stressful life is one particular knowledge that you can gain from this booklet.

Mindfulness towards your daily routine and developing the productivity in your life with constant awareness is the one of the main advantages you can obtain in this booklet.

The first publication of the original work has been done in the year 2009. This work leads to identifying your life stresses under several themes. You can involve in different stress cues and personal plan of stress management can be done by the individuals involved in the life stressors according to their convenience. In addition there are several materials and life facilitators equipped in this book.

Life optimism and use that concept to overcome life stresses is not an alien to all of you as many of the resources in internet and popular publications facilitate it in certain extend. However master in stress management book is deviate from the general approach as it focusing the stress management methodology in a quite significant manner. Participation of this program proposed can be done age specifically. The age ranging between 16 years to 65 years. This program can be used as a health promotion as well. People can use it to get rid of from being subjected to many non-communicable diseases and different illnesses which may the stress is the root.

Some of the illnesses that we can consider as the illnesses and conditions in our life which this stress management techniques might help are: Psycho physical illnesses, Cardiac illnesses, chronic illnesses, suicides, accidents and adaptation issues.

Those who are having such issues can integrate this stress mastering program with proper guidance and supervisor of their physician or. Group leader or consultant of this program can handle the program with the physician guidance. Stress mastering booklet is remarkable as it has following approach in guiding people with stress in different levels.

Multi purposes approach, cognitive behavioral approach, group dynamics and time frame, practical activities and overall physical approach facilitate the program to achieving its maximum outcomes.

People can use the stress master program in three different levels. Long term prevention from stress, structural testing and personal counseling on stress matters. There are several prerequisites to use the booklet. People should have literacy and written skills. Participants can facilitate the program with a pen or pencil and a paper. Individuals are asked to concern upon their stressors which may come from external environment. Stress management process can be implemented using emotional regulations or rational in cognitive approach which may represent the problem focused approach. Lazarus and Folkman (1984) pointed out that Stress can be resulted in interaction between person and environment. Therefore psychotherapy should mainly consider the person and his or her environment in higher priority.

There are two levels of approaches we may use in stress coping: Problem focused and Emotions focused.

The planned booklet consists of ten main sessions of a stress prevention program. First session, here participants are asked to framework their stress. Participants get a chance to check their stress within a limited period of time. Stress is checked with the information given by the participants. Stress analysis is really an assert in different fields in Psychology: Clinical Psychology, Health Psychology, Psycho education, primary prevention, health promotion, investigations on stress managements, rehabilitation, different psycho therapeutic approaches.

Stress can be indicated with several reactions and symptoms: loss of control, meaningless, negative thoughts, Problems in sleep, pre psycho physical symptoms, problems of healing, etc.

In addition to the fact that this booklet helps people to identifying some unexplainable aspects of your stress: captured, obsessiveness, dissatisfaction, sleep awake before regular

awaking time, lethargic feelings even after a long break, sensitiveness, not readying to talk the problems with someone.

The second session is mainly focus on leading the participant to identify their stress using two steps. Firstly it helps to develop short reactions to the stress, and later in the second level it create a prevention mechanisms of developing the stress further and the withdrawal conditions from situations. Stress is a matter of interaction and evaluation we given into a situation. Long term existence of Stress and its roots are deeply explored in this level.

Thirdly, this program is facilitated with Herbert Benson's mindfulness development and relaxation method.

In the third session the whole program focus on cognitive aspects of stress. The useless and meaningless and internal suffering aspects of stress can be minimized in this level. It is supposed to restructure the internal self-talk and minimizing the internal talks.

Developing the mindfulness is the ultimate goal in this level. There are several programs that we could use in order to achieving it. First exercise: Meaningless self-talks and unnecessary analysis of it.

The second exercise is to knowing, stop. Restore and adaptation. The third exercise is to develop individual dimensions of stress management and finally it is planned to train people to express their negative emotions appropriately.

Stress master techniques next focus its attention on writing therapy and anger expression structure from Spielberg. There are several other exercises in it. This enhance our capacity to higher magnitude emotions and it develop our ability to communicating the negative emotions. Second exercise of it teach us the way which teach us to regulate or controlling negative emotions.

Fifth session of this planned booklet specially focusing on positive Psychological aspects which may lead us to reduce stress. It focuses mainly to minimize the negative emotions and cultivating positive emotions.

Sixth, seventh and eight sessions have a priority to develop participants to develop their own identity of finding a unique way of internal stress management resources and their sustainability. Stress stressors, and adequate efficient results will be focusing in this case. People may able to figure out "Who am I?" in this session.

In the ninth session Social resources available to your stress management will be evaluated. Social support system and different social system will be evaluated in order to find external support. Tenth session is focusing on future orientation of your stress management venture. There the participants are encouraged and facilitated expectations orientation and goal setting in future oriented life.

As a nation Sri Lankan people also would benefited soon with great German book of Mastering stressful life efficiently in near future.

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Mental Health in a Platform Context: How Mobile Applications can assist the Improvement of Mental Disorders with Special Consideration of the Individual Case of „ama mind“

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Abstract

Background: The application of e-mental health programs offers new ways to treat patients. With the steady increase in diagnoses of mental illnesses, the need for therapy is also changing. In times of the pandemic in particular, a form of treatment without direct personal contact is therefore desirable. The main goal of this study is to take a closer look at mental health applications and platforms in terms of their helpfulness and acceptance by users. This goal is to be achieved by reviewing papers and applications on the topic with a special focus on „ama mind“ as a case study. Furthermore, the aim is to find out whether mental health apps work as stress relief for patients and are applicable as a coping mechanism or therapy support. **Method:** A literature research was chosen as the method, combined with a closer look at existing applications and their fields of operation. **Results:** Results show a clear trend towards the usage and acceptance of mental health applications and their success as a treatment method. They have significant potential to deliver high-efficiency mental health intervention and can be used as a viable tool to bridge the mental health treatment gap, given the global shortage of psychiatrists and the lack of mental health care in rural regions. **Conclusion:** According to the results mentioned, the overall effects of smartphone-based symptom treatment are significant. Users experienced a betterment of symptoms across all reported studies. Users are willing to work with mental health applications. A vendor-like platform can help instill trust in users and organize the vast field of e-mental health offers.

Key-words: platform, e-mental-health, „ama mind“, mobile applications

1. Theoretical introduction

Mental health is an ongoing issue in modern society. The number of diagnoses of mental illnesses is increasing steadily. Between 1997 and 2014, the number of days off work caused by mental illness in Germany increased by 209%. Of the leading causes, the first is depression (F32). There are 112 days of absence for every 100 insured persons. Adjustment disorders (F43.2) come in second place and account for 42 days of absence for every 100 insured persons (Deutsche Angestelltenkasse, 2015). Especially in times of the pandemic, it is almost impossible to provide a sufficient range of therapies. Mobile applications in the e-mental health area help provide support for therapists and patients even when other options become difficult or impossible to access. Nobis et al. (2017) define e-mental health as an umbrella term for the use of new media for the prevention,

treatment, and aftercare of mental illnesses, which offer new technical possibilities for health promotion and prevention with media support.

The number of apps that are supposed to help with mental health is growing steadily („ama mind“, 2021). For a good reason: apps are a useful tool in self-management of mental health and well-being (Neary and Schueller, 2018) and offer unique opportunities in mobile, cost-effective ways. However, most available apps are not supported by empirical evidence. Therefore, consumers have access to a range of untested apps, the benefits of which are not known or supported. User ratings can be helpful and are likely to be considered by users selecting apps, but they can't replace a proper testing procedure to ensure the reliability of the treatment. That is why attempts are being made to construct platforms to help with the selection of tools (Neary and Schueller, 2018). One of those platforms is „ama mind“, a free solution to find mental support.

„ama mind“ is working on making digital help services more accessible and providing a new way to identify the right solution for improving mental health in a cost-effective and low-threshold manner. The aim is to consolidate the flood of information on the internet and make qualified offers on the subject of mental health understandable. This is achieved by interested parties going through a scientifically-based questionnaire. Using the results, „ama mind“ suggests solutions from its database, determined by the party's state of health. In this way, a wide range of offers can be made available to cover individual needs. Currently, 117 offers have been added to the database.

The topic is of great relevance, as the need for therapy offers is constantly increasing. Especially because studies show that simple health-promoting programs can reduce the number of sick days per year by 26% (psyGA, 2020). Public health organizations like the UK's National Health Service and the U.S. National Institute of Mental Health have pointed in the direction of mental health apps as cost-effective and scalable solutions to addressing the mental health treatment gap (Chandrashekar, 2018). However, people don't only need available treatment, they also need an option to understand which apps are fitting for their situation and which aren't (Neary and Schueller, 2018). Platforms like „ama mind“ can be a great help in addressing this issue.

2. Objectives and questions of the present study

The main goal of this study is to take a closer look at mental health applications and platforms in terms of their helpfulness and acceptance by users. This goal is to be achieved by reviewing papers and applications on the topic with a special focus on „ama mind“ as a

case study. Furthermore, the aim is to find out whether mental health apps work as stress relief for patients and are applicable as a coping mechanism or therapy support.

3. Case Analysis and Procession of Theoretical Data

The range of mental health apps is very extensive. In 2015, a study by the World Health Organization showed that of over 15,000 applications examined, 29% are focused on mental health diagnosis, treatment, or support (Anthes, 2016).

Users are overall willing to work with those apps. Studies found a moderately positive attitude towards or moderate acceptance of e-mental health offers (Apolinário-Hagen et al., 2018). Furthermore, it was found that the intention to use them is related to age, openness, and attitudes towards online stress management programs. Younger people have a higher intention to use e-health applications, as do people with a higher openness value. The more positive the attitude towards e-mental health offers, the greater the willingness to use it (Apolinário-Hagen et al., 2020).

Supporting applications can also be useful outside of the private sector. In the Workplace Intelligence Study by Oracle and Workplace Intelligence (2020), 83% of those surveyed would like their company to provide technology to support their mental health, including chat bots (28%), wellness and meditation apps (35%), proactive health monitoring tools (35%), on-demand counselling service (35%), and self-service access to health resources (36%).

The National Institute of Mental Health classified the available mental health applications into six functionality-based categories: self-management apps, apps for improving thinking skills, skill-training apps, illness management/supported care, passive symptom tracking, and data collection (National Institute of Mental Health, 2021).

Mental health apps exist for all stages of clinical care. That includes immediate crisis intervention, prevention, diagnosis, primary treatment, supplement to in-person therapy, and post-treatment condition management (Price et al., 2014). However, most publicly available mental health apps lack direct scientific support. Users have to navigate the world of mental health apps through peer ratings and based on the appeal of interfaces instead of fundamental psychological principles. Which is why app popularity and user ratings might be a determining download factor but don't offer any clinical usefulness (Neary and Schueller, 2018).

„ama mind“ as a platform offers users a way to find free solutions to improve their mental well-being. A multiple step process exists, starting with anamnesis. Here, the state

of health is determined through a scientifically based questionnaire. Then, based on those results, a selection of mental health apps is presented. The last step is the application usage. The idea is to provide data-based yet anonymous help for their users. Four different types of mental health apps are currently featured. The apps available include “deprixis” and “Selfapy” for depression, “Invirto” and “valibra” for anxiety, “headspace” and “7Mind” for mindfulness, and “Auf Kurs bleiben” and “equoo” for resilience („ama mind“, 2021).

4. Results

When it comes to answering the questions this paper faces, results show a clear trend towards the usage and acceptance of mental health applications and their success as a treatment method. According to Chandrasekhar (2018), they have significant potential to deliver high-efficiency mental health intervention and can be used as a viable tool to bridge the mental health treatment gap, given the global shortage of psychiatrists and the lack of mental health care in rural regions.

Firth et al. (2017) found a moderate positive effectiveness of smartphone mental health interventions for reducing depressive symptoms in comparison to control conditions ($g=0.383$, 95% CI: 0.24-0.52, $p<0.001$) in a meta-analysis of 18 randomized control trials covering 22 mobile apps. The greatest benefits in smartphone-based therapies were found in individuals with mild to moderate, rather than major, depression.

Ly et al. (2015) conducted a randomized controlled, non-inferiority trial to compare blended treatment against a full ten-session treatment for people with major depression. Both groups showed significant improvement across time (within-group Cohen's $d=1.35$; CI [-0.82, 3.52] to $d=1.47$; CI [-0.41, 3.35]; between group $d=-0.13$ CI [-2.37, 2.09] and $d=-0.10$ CI [-2.53, 2.33]). While both groups benefited from the treatment, a blended approach managed to reduce the therapist time with by average of 47%.

In a systematic review of five studies focused on using smartphone apps for treating symptoms of schizophrenia, Firth and Torous (2015) demonstrated that app retention was 92% (95% CI 82-98%). Approximately 3.95 patient-app interactions took place each day, participants consistently used the smartphone apps on more than 85% of the days during the study period. Participants self-reported a range of potential benefits from the various interventions and described their experience largely as positive.

5. Conclusion

Overall, technology is well-poised to transform how mental health treatment is delivered and accessed but requires the combined mobilization of science, regulation, and design (Chandrashekar, 2018).

The main goal of the study was to take a closer look at mental health applications and platforms in terms of their helpfulness and acceptance by users. According to the results mentioned, the overall effects of smartphone-based symptom treatment are significant. Users experienced a betterment of symptoms across all reported studies.

Furthermore, the research of Apolinário-Hagen et al. (2018) suggests users are willing to work with mental health applications and shows a moderately positive attitude towards or moderate acceptance of e-mental health offers. In addition, studies Dennison et al. (2013) found that young, currently healthy adults have interest in apps that attempt to support health-related behavior change. Important influences on app usage are accuracy and legitimacy, security, effort required, and immediate effects on mood.

„ama mind“ has a special place in that treatment discussion because as a platform, it differs from applications in the way it operates. As research from Neary & Schueller (2018) shows, the need for an option to understand which apps are fitting for the personal situation of a user and which aren't is present and can be combated with vendor-like platforms specialized in a scientifically based anamnesis and treatment selection. In a broad market of e-mental health applications, a tool operating on research data evaluated by psychologists and coaches can be a valuable resource to breach the mental health treatment gap.

6. Discussion

6.1 Limitations

Smartphone apps continue to inspire research on the evidence basis of their treatment capabilities. The debate on whether these apps have demonstrated high efficacy is, however, still ongoing (National Institute of Mental Health, 2021). A reason for this is both the lack of evidence-based mobile apps available on the market and the lack of studies on disorder-specific silos for the evidence available (Chandrashekar, 2018). Most apps have not been tested at all. Martínez-Pérez et al. (2013) identified in a review that more than 1,500 depression-related apps exist in commercial app stores. However, there are only 32 published research papers on the subject.

Furthermore, additional research has to be conducted because most of the existing evidence is limited to pilot studies. Randomized trials tend to be small and unreplicated.

Many studies were conducted by the developers of the tested apps, rather than by independent researchers. In addition, placebo-controlled trials are rare, leading to a rise in the possibility that a 'digital placebo effect' may explain some of the positive outcomes documented (Anthes, 2016).

Mental Health applications can only address the needs and wants of the intended users if they are evidence-based and carefully designed. Challenges of using apps for mental health treatment have to be taken into consideration, such as hardware limitations, concerns about data usage, the accuracy of clinically related processes, a potential lack of medical involvement during the app development stage, insufficient information to keep doctors or medical students interested, a potential deviation from or lack of evidence based practice recommendations, issues with patient confidentiality, and clinical risk emerging from use of apps (Marley & Farooq, 2015).

Huckvale et al. (2015) found that 35 of the mobile health apps recommended by the UK's National Health Service transmitted identifying information, such as e-mail addresses, names, and birthdates. Two-thirds of them did not encrypt the data.

Therefore, a platform as a trusted vendor would help users significantly to make informed choices based on scientific data instead of user recommendations. The launch of „ama mind“ has the potential to make a big difference in the German-speaking segment of e-mental health. However, it has to be acknowledged that „ama mind“ does not exclusively focus on e-mental health applications. It is particularly important to them to map the entire range of offers for those affected (apps, hotlines, non-app-based offers, etc.). An improvement in the well-being of potential patients is not achieved by using the „ama mind“ application itself but by the solution sought out based on the recommendations. These solutions do not come directly from „ama mind“, the service only delivers information from mental health providers to those in need.

6.2 Future prospects

In the area of e-mental health, extensive further research and science-based app development are required. Organizing existing apps on a vendor platform can help create trust and inform users. In the future, „ama mind“ also plans to offer workshops in this field and to work with companies in order to improve the supply situation in the long term and to reduce the mental health treatment gap („ama mind“, 2021).

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IV

Education, Work and Health

The Psychology of the 4 directions and the Complete Science

Introduction into specific aspects of the Biocentric Health Theory

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1. Introduction

The biocentric health theory was developed by Stueck and published for the first time in the context of the pandemic (Stueck, 2021). It describes a vision of human being in Covid 19 in which it is about four central terms:

- To connect it has proved that there is increasingly a separation of man from themselves from others and nature
- For awareness that it shows that there is little awareness about the need for connections, neither in fields of policy, health, education, etc.
- In the case of intensity, which is shown that man is increasingly exhausted of everyday loads and requirements
- For the ability of flowing and flexibility it shows SIC that the self-regulatory adaptation mechanisms of man increasingly fail.

The entire theory can not be described here. Only individual aspects can be described. The entire theory is published in 2022.

2. What is Biocentrism?

Biocentrism is about seeking connection and enduring dualities. In this respect, this book is intended

to help make connections and promote understanding in relation to Islamic Psychology and in relation to so-called Western Psychology.

If terms were to be used to describe the Biocentric Model, they are:

- Adaptation and acceptance

- Showing humanity
- Leaving comfort zones, opening to others, to new things
- Dismantling of protective mechanisms and armor
- Allowing instabilities and experiencing one's own vulnerability
- Perceiving and allowing developmental leaps
- Seeking connections, the goal of biocentricity is connection
- Integration of dualities, e.g., pain and joy
- Loving, affective relationship orientation
- Awareness and spiritual development
- Compassion and tolerance for all life forms
- Development of humility and wonder
- Ethics centered on aesthetics and compassion
- Intentionlessness and presence in the here and now
- Respect for all that lives
- Respect for the space another living being needs to express its life ("I am life in the midst of life that wants life", Schweitzer, 1999),
- Acting from the "heart", sharing, giving, and receiving love, being able to see the divine in the other person
- Observing situations or inner feelings without judging
- Experiencing e.g., nature without judgment, being part of nature, experiencing the divine

The biocentric approach (bios=life, centrum= at the center) considers human beings as a component of the natural realm, among many other life forms. It is an inclusive approach that asks for the smallest common characteristics between the living beings of the habitat earth, wants to make them conscious to the human being and thus calls him to cooperate with the components of the natural space, to respect the life in it and to act compassionately with the community of all living beings, but also to act lovingly with himself and with other people, and with nature.

3. Biocentric Boundaries

In Biocentric Health Theory (Stueck, 2021b), various biocentric boundaries have now been defined that make it impossible to connect to self, others, and nature. Biocentric

boundaries were first formulated in Pandemic Management Theory by Stueck (2020), which formed the basis to a study "Covid 19 and Psyche" (Stueck, Bidzan, Faroki, Kankeh, 2020; Bidzan-Bluma, Bidzan, Jurak, Bidzan, Knietzsch, Stueck, Bidzan, 2020). These are behaviors of humans that separate them from life: These include:

- Affective pathologies, such as devaluation of others, lack of self-love (self-destruction).
- Chronic states of stress and exhaustion
- Anxiety boundaries (fear of loving, fear of living, fear of expressing oneself, fear of the primitive)
- Dysregulative situation evaluations and lack of coping
- Hypersensitivity
- Physical and social dissociation

Social dissociations, i.e., separations of parts that actually belong together, include (Toro, 2010) :

- Separation of life and work
- Separation of the sacred and the profane

In the above-mentioned study "Corona and Psyche" a multitude of other separations were uncovered. Among others, separation of people from touches, separation of instinct from rational, separation of ethics and morals, separation of inner and outer natural space, etc. (Stueck, 2021a). The separation of the profane and the sacred will be described in the following, which has a relation to religion.

4. Fundamental Works on the Biocentric Health Theory

Fundamental work on this approach has been presented by Toro (2004, 2005, 2010), with the development of Biodanza, the Biocentric Principle and Biocentric Education, and Schweitzer (1999), with his work on the ethics of human beings in the natural realm ("I am life in the midst of life that wants to live"). Toro (2010) shares the visionary thinking of Schweitzer (1999, Schweitzer, Campion, 1961) and develops a practical approach to implement this with Biodanza: "When I meditate on life, I feel the obligation to respect any will of life around me because it is equal to mine." (Toro, 2004). But also, Cavalgante and Wagner (2018), mainly the concept of living corporeality as a biocentric field of action and many other fields of action in the social pedagogical field, also inspired by works of Freire (Education and Hope, 2007) and Morin (2012).

The deep nature centered approach of Naess (1989, 1998, 2007) also belongs to a biocentric basic theory, which states that it would be better to speak of a community or complex of all living beings when defining nature, than to speak of nature as something separate from humans. Humans are part of it. The influence of parts of nature, namely by cosmic timers, like moon circulation and the light-dark activation by the sun on the living beings is examined by the chronobiology. This connection of the human being with the cosmic space has been completely disregarded in anthropocentric theories. Here, work has been presented on chrono-biopsychology by Balzer and Stueck that is part of biocentricity and demonstrates that humans are a bio-cosmic entity as suggested by Toro (2010). Toro (2010) also shaped the experiential approach to discovering and experiencing the divine in oneself, the other, and nature in the here and now. But his own work on "Complete Science" is also part of this, proposing to integrate the experience or self-experience as a scientific method, alongside qualitative, quasi-experimental and experimental research methods. This way of looking at scientific self-experimentation and experience was already proposed by Husserl (1965) and Dilthey (1986) at the beginning of the 20th century and by then not considered. It was not until Toro (2010) that experience was reintroduced as a method of cognition, and by Stueck (2015) it was included in the set of research approaches. The Biocentric Health Theory (Stueck, 2021b) was developed by the author during 20 years of research, especially the biological and psychological foundations of biocentricity (Stueck, 2007, 2009, 2021) on the Inner and Outer Natural

Space (Stueck, 2021b), on the Penguin and Polar Bear Parable (Stueck, 2015), on the concept of Biopoiesis (Stueck, 2021b), on the scientific evaluation of Biodanza (Stueck & Villegas, 2008, 2021; Stueck, et al., 2009) and on the Concept of the School of Empathy (Stueck, 2013) and on inclusion and connection to Islamic psychology (Psychology of the 4 cardinal points, Stueck, 2021b).

5. Human Egocentrism as Its Factor for Separations

The question "who has the best approach?" is ultimately an entanglement in human egocentrism, which prevents the inner natural space of man and the outer natural space from connecting. The definition of an inner and outer natural space first occurred in Biocentric Health Theory (Stueck, 2021b) and the integration between inner and outer natural space is a goal of Biocentrism. It is all about the connection. One factor that separates it is the human ego. The ego (the ME) was defined by Gislou and Canevese (Stueck, 2021) in connection with the intellect and with control. Egocentrism is a personality trait (Becker, 1989) that increases the so-called ego. Ultimately, the elevation of the ego, i.e., the "inflation of the ego" prevents connection to life and to loving actions and connections, as this process makes it impossible to leave one's own perspective and to enter into connections or to form interactional couplings with others (the "we") or one's environment or nature. The ego (Latin=Myself) stands in psychology for the I, the self. When inflating the ego, offenses of the ego play a role, which can start with the childhood by reference persons, which prevent it from taking other perspectives. Therefore, it is important to pay some attention to the issue of mortification in one's own life and at work, as it prevents normal relationship formation and ultimately necessary spiritual development. Likewise, with unprocessed grievances, it becomes more difficult to develop biocentric attitudes. Self-esteem deficits and personality disorders or the separation of rational evaluation from physicality also play a role in "inflated egos." Transcending one's ego into an "ego-reduced," i.e., trust-based loving connection to others and to nature is a lifelong task. It is, according to Erikson (1959, Theory of the Psychosocial Development of the I, Stage 7: Ego Integrity), the last developmental task a person should accomplish at the end of life before death. This developmental task is closely related to the development of wisdom and spirituality, as well as closeness to nature. The concept of spirituality (lat.=breath, spirit) describes the lifelong search of a transcendent reality, which lies behind the material world, and which is only with difficulty accessible to rational

explanations. Spiritual experiences are connected with questions of meaning and values of existence, with the experience of the wholeness of the world, the experience of the connectedness with something "holy" or the perception of the soul. Likewise, a person's spirituality is connected with the integration of the "inexplicable" and the "ethically valuable" into one's life, which cannot be expressed in language. These are very personal states, independent of religion, which have an impact on the conduct of life, and are difficult to access to logic or communication about them. They are accessible only to the experience.

In table 1 are shown some symptoms of the human ego from the Biocentric Health Theory (Stueck, 2021b), which hinders a connection between human to God, human to nature, human to others. The following exercise would be interesting, namely, to check how strong one's ego is, or the view of a discipline, e.g., Islamic Psychology or Western Psychology disciplines.

Table 1. Symptoms of Ego

Symptomatology of a strong ego, which does not allow man to connect with his inner and outer natural space.	Symptomatology of biocentric features of man, which allow to connect with his inner and outer natural space.
By always wanting to have more	It is enough what I get
I always have to have things alone and am concerned about my own advantage	I am good at sharing
It always has to be the way I envision it	I accept
By devaluing others or entering into competition	I take everything
By masking feelings	Expression of feelings
excessive doing, hyperactivity and thus avoid introspection	Slowing down
Little presence (a lot of thinking about the past, future), not being able to live in the here and now).	Presence
By looking for explanations and excuses for my behavior	It is like it is
Feel guilt	I say what has to be said
Being upset, anger	Acceptance
Controlling and Manipulating situations, Others	I let it free
Feeling shame, being embarrassed	It just happens and must be reflected
Everything needs to be perfect	Be perfect in imperfection, everything is perfect as it is
Often want to be right	We share and there are different

	points of view
Having fixed thoughts about myself with evaluations, having excuses about my behavior	Thinking in which I take different positions, look at something from all sides, without evaluation, perceive and accept
Rigidity in thoughts, ideas and feelings about oneself in the inner space of nature.	Nature changes every four months in the outer natural space
I identify with roles, have masks and merits "I am the one or the "	I am authentic without role, without mask, I don't need merits
I can't stand doing nothing or certain states of being and have to fill inner empty spaces with activity or substances.	I endure doing nothing and enjoy it

A form of life for overcoming the human ego is named in the Biocentric Health Theory (Stueck, 2021b) the turning to the spiritual development of a human being and to the development of the ability to love. This needs consciousness.

6. Necessity of a "complete science"

The solution would be simple. In the Biocentric Health Theory (Stueck, 2021), in the chapter "Complete Science", it is proposed to use the following research gates:

1. The experience, without language and evaluation, in the here and now, only description of what is experienced
2. Self-reflection on inner processes in the here and now, with language, but without evaluation, merely description of what is reflected upon
3. Descriptive, qualitative methods (describing, ordering, evaluating, and classifying)
4. Quasi-experimental methods (measuring, testing hypotheses and evaluating in the field)
5. Experimental methods (measure, testing hypotheses, and evaluate in the laboratory).

Also, in addition to this variety of scientific methods, holistic psychology should be interdisciplinary. And it should include cultural contexts, including religious contexts. This concept was implemented as a research concept at the DPFA University of Saxony until 2018.

7. Necessity of a Psychology of the Four Directions

Therefore, besides the research gates, which secure the connection between personal experience and reflection with the object of investigation and the empirical-scientific reflection and investigation, a second proposal is interesting. Here the division of a psychology into the 4 cardinal points (directions) is proposed:

- **The psychology of the north:** it was founded by the experimental works of Wundt (1900) in Leipzig. It is the academic psychology we know, in which many psychologists feel at home, having studied it. It then spread to the West. Wilhelm Wundt had 150 PhD. students from all over the world at the University of Leipzig, the first psychological institute in the world, founded in 1879. Basic subjects of experimentally based psychology, of which Wundt is the father, are general psychology, social psychology, personality psychology, etc. In this northern view subjectivity is conceived as something separate from objectivity. Wundt also tried to develop the psychology of the 4 cardinal points with the description of the psychology of peoples, although he did not call it like that and tried to standardize the psychology¹ with a "north-western" way of thinking, in which he ordered and classified ways of life of the 4 cardinal points according to certain criteria by so-called mental objectivators, which describe and classify social processes of community, art and culture of different cultures. Wundt highlights about 20 fundamental motives of cultural development. Examples are: Life care and division of labor, child care and community, self-education motive, making and imitation motive, ensoulment and magic motive, rescue and redemption motive, play instinct and jewelry motive, and values such as freedom and justice. The psychology of the North naturally includes Sigmund Freud from Vienna, the founder of psychoanalysis, Ebbinghaus who studied memory, Neumann who introduced psychotechnology. To the psychology of the North belongs the Russian psychology of Leontjev and Pavlov, the psychologists of learning. Likewise, the developmental psychologist Vygotsky, who described the zones he next develops, which plays a role in this pandemic management theory or biocentric health theory.

¹ Between 1900-1920, he published a ten-volume psychology of peoples with standardized studies of language, myth, and mores, covering areas such as art, society, law, culture, and history. These works are basic works of cultural psychology. In them, Wundt analyzed spiritual-cultural and cultural-psychological processes and classified them according to a system of psychological and epistemological principles.

- **The psychology of the West:** has been founded mainly in the Anglo-Saxon area and is related to the psychology of the North and, like the psychology of the North, works with the approaches of the experiment, quasi-experimental research, and qualitative paradigms. If as many variables as possible are controlled in the experiment, then the finding is more objective and valid (high internal validity, validity). This comes at the cost of practicality (low external validity). This is a dilemma, because without the inclusion of the experience, achieving high external validity becomes difficult. Western psychology is now guiding action throughout the world. The above-mentioned research paradigms shape the applied disciplines as we know them: educational and clinical psychology or psychotherapy, industrial and organizational psychology. Here, too, subjective experience and objective comprehension of states are separate from each other. Psychologists like Seligman (positive psychology), Beck (cognitive behavioral therapy) and Lazarus (stress psychology) also play a role in the Biocentric Health Theory. The psychology of the North and West are according to the penguin and polar bear concept according to Stueck (2015) directions, the polar bear archetype represented (see Part 2, Stueck, 2022, Biocentric Fields of Action).

- **The Psychology of the South** is a diametrically different psychology, because it consists of work that focuses on experience and the subjective construction of reality that is thereby set in motion. There is no separation of objective and subjective worlds. The experience is a research method. Toro (2010) refers to the experience as vivencia and the royal road to psychic health. Representatives here are: Castaneda (1967), Naranjo (2005), Toro (2010), Maturana (2002). Included in southern psychology is the work of shamans in South America and Africa. These are partly methods that work through the experience and engagement with the method (trust in the shaman's medicine). This also includes the work with Ayawaska in psychotherapy, with Biodanza, etc. (see Part 2, Stueck, 2022, Biocentric Fields of Action).

- **The psychology of the East** includes Islamic psychology, as described above. But also, the self-awareness systems, e.g., of Yoga and related works (Patanjali, zit. Blitz, 1987). The Yoga Sutras of Patanjali (Blitz, 1987), are the first psychology book of the world, because in the Sutras (verses) the verses summarized by the

Rishis (seers) about the interaction of body and mind were written down for the first time. But also, the Sufis (eastern mystics) belong to it beside many further self-experience disciplines of the Orient, which the Occident (the west and north) did not take up at all into its psychological understanding. The psychology of the East also includes holistic medicine with its "resounding" effects of Indian medicine (Ayurveda), Chinese medicine (acupuncture). Here not every effect is measurable. For example, the energy pathways (meridians) in Chinese medicine are only partially detectable, as are the chakras (energy centers) and the aura (so-called astral body) of Indian medicine. But they exist because they can be experienced in the application of the methods. Here meditation and psychoactive substances help as well in perception (psilocybin, see Part 2, Stueck, 2022, Biocentric Fields of Action). The tradition of the Sufis and their insights (laid down in various writings) also belong to the psychology of the East.

It is only through the teaching and practice of the psychologies of the North, West, South, and East, as proposed in Biocentric Health Theory, that one can claim to teach and practice a holistic psychology or science of human psychological processes that is connected to life and is a true-life science. Focusing on the North-Western psychology tradition as it is practiced at the moment is not sufficient for this. It lacks connection to cultural and religious contexts, body-oriented self-awareness, and observation, without judgment. Too much is taught and too little is experienced, or these experiences are recognized as significant knowledge of the individual, as his truth, in the form of casuistic scientific value.

8. Examples of Successful Integration

In the past, there have been several successful examples of how Islamic and Western psychologists can work together:

- For example, between 2009 and 2013, course instructor trainings on empathy were conducted. This included training psychologists at the Islamic University of Yogyakarta on the dance-oriented program with Biodanza (Empathy School nonverbal) and Nonviolent Appreciative Communication (Empathy School verbal)
- These evidence-based programs developed at the University of Leipzig were then implemented and evaluated in Islamic educational institutions in Yogyakarta.

- Establishment of a laboratory with chronobiological measurement instruments used in Islamic psychological research.
- Finally, the doctoral thesis at the University of Leipzig (Prof. Witruk).
- Several scientific articles have been produced

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Modeling of the bio-psychological health assessment in Tehran pre-hospital emergency staff based on the theory of bio-centric health management

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Keywords: Modeling, Bio-psychological assessment, Pre-hospital emergency, Health management, Bio-centric function, Physiological status

Introduction: People who provide public services should be biologically and mentally healthy so that people can benefit more efficiently from their services. The performance and physiological status of workers providing relief services, such as emergency care staff, is of particular importance due to their two vital and sensitive roles. They face stressful environments and, in addition to their usual duties, they are responsible for transport patients and saving their lives. The theory of bio-centric health management based on the bio-centric paradigm has been established as a new and different perspective from the dominant human-centered paradigm for assessing bio-psychological health since 2000 by Stueck (2019, 2020a, b). For this purpose, the present study was designed to model the risk assessment of bio-psychological health of pre-hospital emergency care staff based on the theory.

Materials and Methods: This study is a quantitative multi-method research based on the positivist paradigm. In the first part, the design, development and validation of the set of tools for assessing the risk of bio-psychological health was a methodological study. The pool of variable items of the bio-centered acting outcome was classified into three categories of the antecedent, feature and after-effect in the panel of experts using the adopted Hybrid method of Schuartz. Then, the process of psychometrics and validation of the set of tools was performed. In the second part, relationships between the study variables were explained by modeling structural equations in a descriptive correlational study. The study population was the emergency medical staff of Tehran.

Results: At the end of the first part of the study, psychometrics (the formal validity, content, structure and reliability), the set of tools including 87 items of external and internal sources of stress, stress outcomes, workload status, bio-centered acting and physiological status were measured. A total of 585 people participated in the study. The

exploratory factor analysis and the confirmatory factor analysis were performed with 300 and 263 participants, respectively. The results of the second part identified the fit indices (GFI = 0.788, NFI = 0.651, CFI = 0.810, RMSEA = 0.053 and CMIN = 1.746). Therefore, the structural equation model of bio-psychological health of Tehran emergency care staff had an acceptable fit. Also, most relationships were significant and the largest general relationship was between the bio-centered function and physiological status while the smallest relationship was between the self-related internal factors and the consequences of stress (the resilience outcome).

Conclusion:

The present study showed that the fit of the final model of relationships between the variables based on the cognitive model in the selected sample of this study was desirable; therefore, the structural equation model, of a bio-psychological risk assessment based on the theoretical framework is established in the Tehran pre-hospital emergency staff. This model showed that the external and internal sources of stress as the independent variables affected on the mediating variables of the external status of workload and the stress outcomes; finally, the bio-centric function as the first consequence and the physiological status as the final consequence indirectly affected. The mediator role of the external status of workload and the stress consequences has been emphasized so that the effect of all independent and mediating factors of this model has been confirmed through the bio-centric performance over time. The internal and external factors of stress can alter the performance of pre-hospital emergency care staff over time. Therefore, programs that are prepared to manage these factors should pay special attention to 1- Adverse emotional, cognitive, somatic (physiological and neuromuscular) and social consequences, also the status of the work environment as well as 2- the consequences of resilience and adaptability.

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Space adventure: Defend the planet!: A video game to support mathematics in children with special needs

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Abstract

Improving numeracy will lead to better individual perspectives and substantially impact society, especially with lower-achieving learners, such as children with special needs. Space adventure: Defend the planet! is a research-based game designed to support basic arithmetic and basic geometry. The study follows two research questions: Q1: Did the students' progress in mathematics after playing the video game?; Q2: Is the gameplay of Space adventure: Defend the planet! an engaging experience for players? Three deaf, one child with dyscalculia and six hearing students integrated into the Special Education school programme, aged 9 to 16, played the video game between pre and post-test game sessions. The results show 4 % to 19% of mathematics progress. Concerning the video game as an engaging experience for players, the Special educational teachers enhanced children's motivation to play. The results of the emotional scale applied at the beginning, middle, and end of game sessions show that children felt "very" satisfied in the three moments and were willing to continue the game sessions. The results show slightly positive effects on learners with special needs. More qualitative data and supplementary studies are needed to analyze the video game's impact on special-needs children. This study enlightens on the necessity of adjusting the mathematics game-based intervention approach to the children's learning needs and learning pace.

Key-words: educational video game; mathematics; children; Special Education

Introduction

Mathematics is one of the key's competencies of the 2030 OECD project, and personalized learning is one of the 2030-project visions of the 21st Century.

Studies show that basic arithmetic is a good predictor for later school mathematics achievement (e.g. Marcelino, de Sousa, Lopes, 2017, Hornung, Schiltz, Brunner and

Martin, R 2014), so most researchers focus on basic numerical competencies to design effective interventions (Marcelino, Cunha Teixeira, Rato, 2017). Improving numeracy will lead to better individual perspectives and substantially impact society (OECD, 2018), especially with lower-achieving learners, such as children with special needs.

Systematic literature reviews found that Deaf and Hard of Hearing (DHH) children have lower mathematics achievement compared to hearing students. Deaf children have more difficulties in abstract counting and symbolic addition and subtraction tasks (Gottardis, Nunes and Lunt, 2011; Marcelino et al., 2019).

Computer-based intervention (a video game) positively affects learners' motivation (Gee, 2007; Kadosh and Dowker, 2013). In good game-based learning (GBL) approaches, players and students are more willing to be engaged and immersed in an activity (Habgood and Ainsworth; Ke, 2017). Moreover, game-based learning approaches reveal a significant and positive influence in several areas of cognition (Bisoglio, Michales, Mervis and Ashinoff, 2014), resulting in improved performance in several areas of knowledge, such as mathematics.

Chodura, Kuhn and Holling (2015) show that intervention effectiveness is associated with direct or assisted instructions regardless of learning age but reported no significant differences between computer-based and face-to-face intervention. This lack of substantial differences means that computer-based intervention can be as effective as a non-computer-based intervention with human tutors.

The duration of the intervention is one crucial variable in applying intervention programmes. According to Kroesbergen and van Luit (2003), shorter intervention is more efficient than 12 months. found that computer-based intervention improves basic arithmetical competencies after 20 sessions. The intervention approaches are considered more effective when adaptive to the child's learning needs and learning pace (Burns et al., 2010; Kohn et al., 2020).

Concerning effective intervention approaches, there is a lack of studies that compares the impact of computer-based and non-computer-based intervention in basic arithmetic. The thirty-five studies analysed in Chodura et al. (2015) meta-analysis does not include a mix of the two types of intervention. An intervention with tutors plus a computer-based intervention with personalised learning may allow lower achieving learners to go further than low achievement.

The current study is under the GBL4deaf – Game-based Learning for Deaf Students project [PTDC/COM-CSS/32022/2017] using a GBL framework where a video game was designed and developed by root. The project aims to evaluate the use of an educational

video game for mathematical learning (basic arithmetic and basic geometry), in particular, for deaf students.

1. Objectives

The current study explores the effectiveness of a computer-based intervention (a video game) integrating the intervention with tutors (personalized training) to promote basic arithmetic and geometry (e.g. calculation with angles) in children with special needs.

1.1 Research questions

The study follows two research questions: Q1: Did the students make any progress in mathematics achievement after playing the video game?; Q2: Is the gameplay of Space adventure: Defend the planet! an engaging experience for players?

1.2 Goal

Designing effective game intervention to promote mathematics learning and mathematics engaging in children with special needs, particularly, deaf children.

2. Method

2.1 Participants

A convenience sample of children with different special needs, aged 9 to 16, attended public schools Grade 5-9, except one deaf student with home education equivalent to Grade 4. The sample comprised six deaf students, six hearing students integrated into the Special Education program, and one girl with dyscalculia.

Table 1. Participants' characterisation

	Sex	Age	Grade	Special Needs
Subject 1	M	9	4 (home education)	Deaf without CI
Subject 2	F	12	6	Dyscalculia
Subject 3	F	16	9	Deaf with CI
Subject 4	F	16	8	Deaf with CI
Subject 5	M	13	5	ASD
Subject 6	M	10	5	Asperger Syndrome
Subject 6	M	12	5	Cognitive Deficit
Subject 8	M	10	5	Cognitive Deficit

Subject 9	F	14	7	Cognitive Deficit
Subject 10	F	13	6	Cognitive Deficit

Note: M = Masculine, F = Feminine, CI = Cochlear Implant; ASE = Autism Spectrum Disorder

2.2 Materials

2.2.1 Video game “Space adventure: Defend the planet!”. The software used is a delta version of a standalone game produced with the Unity game engine. The game is a mathematical educational game for formal and informal learning. The player must use mathematical abilities to solve four challenging puzzles to build a space base, but only three challenges are under study. Each challenge has three difficulty levels designed to provide the player with progressively advanced mathematical knowledge and reward them with the resources necessary to build and upgrade their space base.

Challenge 1 consists of an addition and subtraction puzzle in which the player must add or remove particles of an 'atom' to create a resource. Challenge 2 consists of multiplication and division tasks in which the player must decide the number of cars needed to transport the produced gears. Still, they must determine the total amount to be made each round by using multiplication reasoning. In challenge 3, the player applied algorithmic thinking and notions of angles, including angles calculation and rotations in a type of game known as turtle geometry to complete a plan in a 5 x 5 grid by using step-by-step sets of instructions: turn to the right, turn to the left, step forward.

2.2.2 Emotional questionnaire. The questionnaire is a researcher-based scale about the PANAS - Positive and Negative Affect Schedule short-version (Watson, Clark, & Tellegen (1988) that evaluates the intensity of emotions felt by the players while playing the video game. Five positive emotions were measured: satisfied, relaxed, involved, enthusiastic and excited; and five negative emotions: confused, bored, agitated, unsatisfied, and disappointed. Players asked to answer a 5-point Likert scale (1 = not at all; 2= a little; 3 = moderately; 4= quite a bit; 5= extremely) to the following statement: "How did you feel while playing the video game?".

2.2.3 Game Mathematics Contents Evaluation (GMC). GMC is a researcher-based measure in reference to The 15 Minute Norm-Referenced Mathematics Test (Chinn, 2017) in his book “More Trouble with Maths: A complete manual to identifying and diagnosing

mathematical difficulties”. The measure was constructed to allow the subject to demonstrate procedural (and conceptual) knowledge without verbal stimuli. For a better adaptation to the mathematical contents of the video game, 28 items were selected and 16 of the original test were eliminated. The sixteen items deleted were related to algebra, fractions and basic arithmetic operations in vertical representation. Eleven items have been added to include the mathematical contents present in the video game. The final GMC comprises 38 items related to basic arithmetic and basic geometry.

2.3. Procedure

Due to the pandemic, the video game intervention and fieldwork to measure mathematics achievement with an initial sample of 28 deaf students were impossible to conduct. Instead, a convenience sample, aged 9 to 14, comprised deaf students (n= 3) and hearing students integrated into the Special Education program (n= 7) with different special needs. The video game was used as a tool to support mathematics contents, such as the four arithmetical operations and Basic Geometry – calculation of angles and essential algorithmic thinking (the turtle game).

The children online intervention takes place two or three times per week with sessions of 50 min in their home environment or school for 6 or 12 weeks.

The game sessions include children, the tutor (a researcher and math psychologist), a special education teacher and the sign language interpreter (in the case of deaf children without cochlear implants).

At the beginning, middle, and end of the sessions, children were asked to fill an emotional questionnaire to gather information about how they felt after playing the video game.

Mathematics achievement was evaluated before and after the game-training sessions.

3. Results and implications

The results show 4 % to 19% of mathematics progress. A ten-year-old deaf boy (with home education) finished in six-game sessions, accomplishing the consolidation criteria that means three consecutive successful trials in each difficulty level in each game challenge, and improved 12%. A twelve-year-old girl diagnosed with dyscalculia improved 19% on mathematics achievement. Three students diagnosed with cognitive deficit did not progress after playing the video game, except a ten-year-old boy diagnosed with the cognitive deficit-increasing 7%. A ten-year-old boy with Asperger Syndrome improved 4% (see Figure 1).

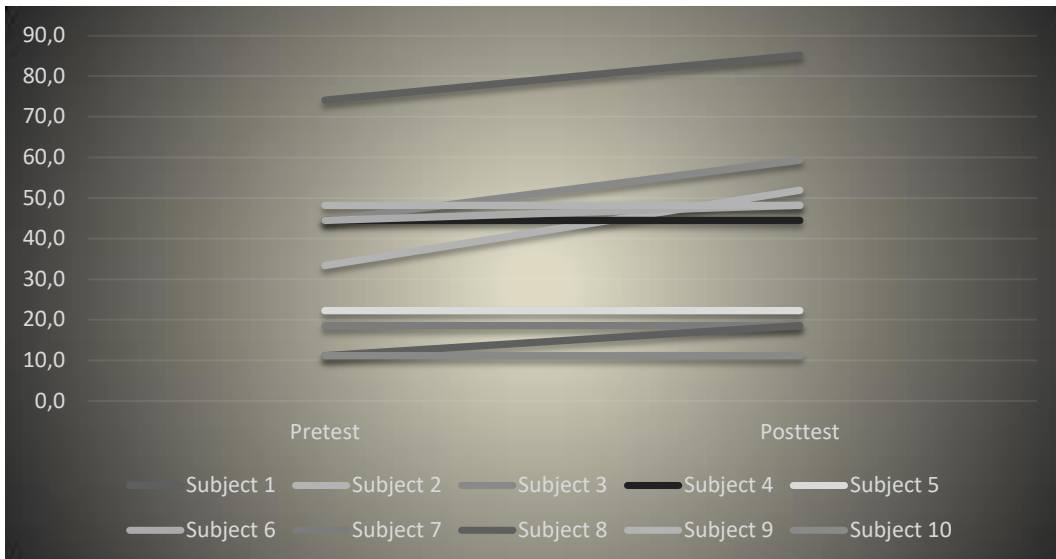


Figure 1 - Mathematics Evaluation score (%) by participant before and after playing the videogame

Concerning the video game as an engaging experience for players, the Special educational teachers enhanced children’s motivation to play. They corroborated the results of the emotional scale applied at the beginning (Moment 1), middle (Moment 2), and end (Moment 3) of game sessions. The children felt “very” satisfied in the three moments and were willing to continue the game sessions. Moreover, all children reported feeling more positive emotions than negative ones, like satisfied, enthusiastic or involved in game sessions.



Figure 2 – Positive and negative emotions reported by children at the beginning (Moment 1), middle (Moment 2) and at the end (Moment 3) of the game sessions

As a final consideration, the results show slight differences before and after playing the videogame in children with cognitive deficits. The conditions of evaluation and intervention, for instance, the instrument, individual differences, family vs. remote sessions, the learning pace of each child, the number of game sessions, might explain the results.

More qualitative and ecological analysis plus additional studies are necessary to consider the video game as an effective tool to improve mathematics achievement in children with special needs. For instance, use an observational grid to analyse children's game challenge strategies in the recorded game sessions.

The study enlightens the importance of adjusting the mathematics game-based intervention approach to the child's learning needs and pace to promote mathematics achievement.

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The perception of interparental conflict and school retention in a sample of students from professional courses

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Abstract

Conflict between the couple can happen, but it does not always have negative consequences. However, study results suggest that interparental conflict tends to affect family functioning negatively and is associated with emotional and behavioral difficulties in children or adolescents. Thus, this study aims to verify if there is any relationship between the perception of interparental conflict and school retention. The study included 139 adolescents of both genders, aged between 15 and 18, the students are from the 10th to 12th grade of vocational education. For data collection, Children's Perception of Interparental Conflict Scale (CPIC) was used. The results obtained show the existence of a relationship between the perception of interparental conflict and school retention. It appears that students with higher averages in some of the dimensions assessed by the instrument have already had at least one retention throughout their school career.

Keywords: Family, interparental conflict, adolescent, school retention.

Introduction

In Portugal, Professional Courses are one route of secondary education with double certification. These courses prepare teenagers for an easier and more qualified insertion in the labor market and allow them to carry out studies at post-secondary level and higher education.

Professional Courses are recommended for those who completed the 9th grade of school or equivalent training; and who are looking for a more practical and labor market-oriented training and/or to pursue higher studies.

There are Professional Courses in the most diverse areas of education and training, such as: industry and technology, services, commerce and transport, agriculture and environment, sociocultural animation (...). Professional Courses or Vocational education has been marked by the stigma of social class (Alves, 2019). It is a form of training, seen as a second option, courses are usually attended by students aged above the average (Lemos, 2015). School trajectory marked by failure (Pacheco 2014; Santos, 2016). In addition to the stigma of social class, data from the General Directorate of Statistics for Education and Science (DGEEC) show that students in professional courses: Show ages

above the expected average, come from family with a lower level of education when compared to scientific-humanistic courses (DGEEC, 2020).

We can see here characteristics of some vulnerability in both, the family context as well as in the school route.

Conflict between the couple can happen, but it doesn't always have negative consequences. However, study results suggest that interparental conflict tends to affect family functioning negatively Forehand, (1991); Thompson, (2020) and is associated with emotional and behavioral difficulties in children or adolescents (Davis & Epkins, 2009).

According to Parsa, et al. (2014), the perception that children have about the conflict between parents can be analyzed simultaneously considering three dimensions: conflict, threat to the self and interpretation. In this regard, Grych and Fincham (2000), Atkinson, et al. (2009), state that the child or young person assesses whether the existing conflict is due to themselves and what is the degree of threat that can result from it, namely, physical consequences for themselves and/or family members (eg the divorce of country).

The studies by Davern and Luk (2005); Ghazarian and Buehler (2010) showed that there seems to be a difference in the assessment of interparental conflict between parents and teenagers, as teenagers seem to perceive conflict as a high tension event, that is, threatening and serious, while parents consider it low voltage. The volume of a discussion can be an important indicator for a teenager, regardless of the content, contrary to parents who may attribute a higher intensity to the conflict due to its content. Conflicts involving physical or verbal aggression are considered the most harmful to adolescent functioning (Forehand, et al. 1991; Fosco and Lydon-Staley, 2019).

Investigations carried out with families, by Davern, Staiger and Luk (2005) concluded that the adolescents' perception of interparental conflict proved to be a predictor of the adolescent's psychological adjustment in the family environment. Additionally, Tornincaso (2006) states that the "problematic" behavior of an adolescent is an important indicator of interparental conflicts. According to Cummings and Davies (2002), if adolescents are exposed to a high level of conflict, their emotional security decreases and, consequently, contributes to greater levels of reactivity to circumstances.

Also in the same sense, Mazefsky and Farrel (2005) add that violent behavior among adolescents can be a consequence of experiences of violence at home, a low level of family support and inadequate parenting practices.

The studies, Ghazarian and Buehler, (2010), also show that, especially in adolescents, there seems to be an association between the existence of interparental conflict and decreased school performance, since conflict, as a stressor, affects the adolescent's responses that will be based on stress Luthar and Cicchetti, (2000) and their attention and concentration will be focused on the experience of interparental conflict and the emotions it provokes, rather than focusing on the study.

According to Cummings and Davies (2002), if teenagers are exposed to a high level of conflict, their emotional safety decreases.

The studies, also show that a child or adolescent growing up in a family environment where interparental conflicts are a constant, can lead to:

emotional instability, to the development of low self-esteem (Kolb and Griffith, 2009), anxiety, depressive symptoms, sadness, shame, avoidance, aggressive behavior, sleep problems, conflicts with peers, difficulties in academic performance (Cummings and Davies, 2010; Kumar and Mattanah, 2018; Smith, Nelson and Adelson, 2019).

Studies also show that, especially in adolescents, there seems to be an association between the existence of interparental conflict and decreased school performance (Ghazarian and Buehler, 2010).

In this sense, it can be inferred that children and young people in these conditions live in a vulnerable situation and are subject to developing difficulties that affect different areas of their development.

The data suggests that the reduction in school performance may result in school retention.

The term "retention" in regard to school means repeating an academic year of school; grade retention, being held back, or repeating a grade.

Dupriez, Dumay and Vause, (2008) states that grade retention is used to deal with situations of heterogeneity of students in some countries. The way in which this practice is used varies from country to country depending on the type of integration of students into the education system. So, in Portugal, the practice of grade retention is justified by the uniform integration system (Mons, 2007).

According to American Association of School Psychologists, , in most cases, teachers recommend retention for one of three reasons:

developmental immaturity that has resulted in learning difficulties;

emotional immaturity that has resulted in severely disruptive behavior;

or failure to pass standardized proficiency or achievement tests at the end of specific years.

Another less common reason for retention is poor attendance due to medical absences.

Students at highest risk of being retained share certain characteristics:

young or immature for their grade; developmental delays; attention, behavioral or emotional problems; have problems Reading; have changed schools often; live in families with incomes below the poverty level; live in single-parent families; live with adults who are uninvolved in their education.

In most OECD countries, grade retention is a restricted practice and only applied in higher educational levels.

Thus, considering what was mentioned above regarding the positive associations between variables in the family environment of children and teenagers and others related to the school context, it was relevant to investigate the relationship between interparental conflict and grade retention in vocational education students.

1. Objective

Faced with characteristics of some vulnerability in the family and academic contexts, this study aims to explore the existence of a relationship between the perception of interparental conflict and grade retention in a sample of students from professional courses.

2. Method

2.1. Participants

The study was carried out with a convenience sample of 139 students, of both genders (40.3% girls) and (59.7% boys) aged between 15 and 18 years ($M=16$ years old) ($SD=.902$). In Professional education these students attend to Restoration, Tourism, Multimedia, Auxiliary health technician and Computer technician courses, 73.4% ($n=102$) never failed, and 26.6% ($n=37$) have grade retention.

In the sample, 50.4% ($n=70$) of the mothers had less than or equal to 9th grade education and 49.6% ($n=69$) had secondary education, a bachelor's degree.

As for the parents, 60.4% ($n=84$) have an education level lower than or equal to 9th grade and 39.6% ($n=55$) have an education level equal to or higher than secondary education.

2.2. Instruments

Socio-Demographic Questionnaire

The Socio-Demographic Questionnaire collected information about, gender, age, school year, grade retention, perception of you as a student.

Information on parents' educational qualifications, profession and employment status was collected to verify their socio-economic situation.

Questionary Children's Perception of interparental Conflict Scale (CPIC)

The Children's Perception of Interparental Conflict Scale (CPIC), Portuguese version by Moura, et al. (2010), based on the version developed by Grych, Seid and Fincham (1992), assesses the perception of children and adolescents regarding interparental conflict.

In this instrument, answers are given using a 6-point Likert scale.

The 48 items are divided into 9 subscales (frequency, intensity, resolution, content, threat perception, efficacy, Self-Blame, triangulation and stability) which are grouped into 3 dimensions (Conflict Properties, Self-Blame and Threat).

The “Frequency” subscale gathers items that assess the number of times (frequency) the subject witnesses the conflict between parents; The “Intensity” subscale gathers items that assess the exacerbation of conflict behavior; The “Resolution” subscale, assess the ability of parents to resolve conflict.

The “Content” subscale assesses the participants' perception of with whom the issues of interparental conflict relate (e.g. related to themselves or others); The “Threat Perception” subscale gathers items related to the fear felt by the participant during conflicts; The “Effectiveness” subscale gathers the items that assess the ability to deal with the problem, that is, the feeling of competence/incompetence to deal with this conflict; The “Self-Blame” subscale gathers items related to the participant's self-blame for the conflict; The “Triangulation” subscale gathers the items that assess the use/manipulation of the participant by the parents, being encouraged to take sides. Finally, the “Stability” subscale gathers items that assess the perception of the type of feelings (e.g. love, happiness) underlying the parents' relationship.

The questionnaire was validated for the Portuguese population, also showing high levels of reliability (Moura, et al. (2010).

2.3. Procedures

Participation in the study was voluntary and only performed after authorization from parents or tutors. During and after data collection, all ethical and confidentiality conditions were safeguarded.

Data were treated using the statistical analysis software – Statistical Package for Social Sciences (SPSS) (version 21).

The non-parametric Mann-Whitney test was used, with the objective of determining the existence or not of differences between groups (Maroco, 2007).

3. Results and implications

3.1. Results

The results presented below correspond to the statistical analysis of the data collected. These were structured to respond to the objective of the present study (exploring the existence of a relationship between the perception of interparental conflict and student retention in a sample of students in Vocational Education).

The results found show statistically significant differences in the means in 5 of the 9 Subscales and in 2 Dimensions of the same questionnaire. Students with retention throughout their schooling had the highest statistically significant means in the subscales (Intensity; Resolution; Content; Self-Blame and Stability) and in the dimensions (properties of conflict and Self-Blame), when compared with students from the other group who did not presents retentions throughout their schooling (cf. Table 1).

Table 1: Comparison of means in the CPIC subscales and dimensions in (student retention)

<i>(CPIC)</i>	Students with school retention		Students without school retention	
	Mean	Median	Mean	Median
Frequency	2.9	3.2	2.6	2.3
Intensity	2.88	2.71	2.36	2.07
Resolution	3.16	3.33	2.83	2.67
Contents	2.39	2.25	1.98	1.75
Threat	2.68	2.67	2.51	2.50
perception				
Efficiency	3.11	3.17	3.07	3.00
Fault	2.86	3.00	2.55	2.40
Triangulation	2.21	1.75	1.94	1.50
Stability	2.76	2.75	2.14	1.75
<i>Dimensions</i>				
Conflict	2.96	2.79	2.59	2.34
Properties				
Self-Blame	2.65	2.67	2.30	2.00
Threat	2.89	2.27	2,79	2.75

In these subscales, the highest mean occurs in students who have already had a retention throughout their schooling, compared to those who were never retained.

The results of the Mann-Whitney U test for the comparison of the means of the (CPIC) subscales, were statistically significant in the subscales: Intensity (U=1304.0; p=0.005); Resolution (U= 1356.5; p = 0.011), Content (U=1434.5; p=0.029); Self-Blame; (U=1448.5; p=0.036) and Stability (U=1400.0; p=0.019).

3.2. Discussion and conclusion

The results of this study are analyzed considering the literature to give them a better understanding. The purpose of the study was to explore the existence of a relationship between school retention of the student (adolescent) and interparental conflict.

The study focused on a sample of students from professional courses, due to the characteristics associated with the students and the negative view of these courses, which are marked by the stigma of social class (Alves, 2019).

The results suggest that there is a relationship between student grade retention in this sample of students from professional courses and interparental conflict, showing statistically significant differences in the means in some Subscales and Dimensions of the questionnaire (CPIC). It is observed that students with school retention present, statistically significant higher averages when compared with students without school retention (cf. Table 1).

These results are in line with studies Baker, et. Al, (2011) that report that adolescents who report higher levels of interparental conflict they are more likely to have worse school results due to less attention in class and, consequently, poorer school performance.

And others show that a percentage of school failure is due to family instability.

According to El Sheik et al. (2001), the conflict between parents proves to be a stressor and compromises the daily functioning of their children's lives. Comparing the stages of development, Krishnakumar and Buehler (2000) concluded that pre-teens and adolescents are the ones who are more negatively affected by interparental conflict than younger children, as they are more aware of the occurrence and presence of conflict.

So, it is possible to infer that adolescents who are more exposed to interparental conflict will have lower self-esteem, lower self-efficacy perception and, therefore, lower academic performance.

It is important to emphasize that conflicts are present in the dynamics of couples, but if there is family cohesion, there are protective factors that allow adolescents the necessary resilience to manage the conflict and mitigate its negative consequences.

The study still needs some more statistical analyzes that include other variables to deepen the discussion. However, they permit us to underline the importance and the need for children and young people of a stable, balanced, and safe home environment, free from harmful conflict.

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V
Intervention and Education

Decision – making: applying experiential concepts to facilitate the inner process and its reflection in situations where decisions are to be made

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Summary

In the field of research on decision-making, there are approaches from many schools of psychology and other disciplines, especially economics and behavior economics. Here some aspects of theory and practice of human decision-making processes will be outlined that arise from the study and conceptualization of the subjective, personal experiencing of decision-making situations. The focus is especially on those aspects which are relevant for facilitating decision-making by a facilitating partner (process facilitator, counselor, coach, therapist). The purpose of this article to demonstrate the potential of the experiential approach which is not only relevant for clinical applications, but also for the improvement of decision-making. Within this article we demonstrate an example for the functioning of Focusing-oriented decision-making. The label of this method is EDM - Experiential Decision-Making. We expect EDM to develop as a substantial new approach in non-clinical use of Focusing.

1. Experiential Approach to Decision Making: Some basic concepts of the Experiential Approach

1.1 The Experiential Method belongs to the **process-oriented** procedures: suggestions, instructions do not make any specifications or advice on the content level, but support the person in the constructive shaping of inner attitudes and dealing with solution-oriented blocks to action and thinking (Feuerstein, 2001; Madison 2014).

1.2 The work of Eugene T. Gendlin, U. Chicago (1926 - 2017).

The conception of experiential decision making developed here is based on the work of Eugene T. Gendlin, born in Vienna in 1926, of Jewish descent, who fled with his family to the USA in 1939 to escape the Nazi regime. Since the 1950s he started his academic career at U. Chicago, 1962-1994 he was a professor of philosophy and psychotherapy at the University of Chicago. There he was a collaborator of Carl R. Rogers in research on

client-centered psychotherapy and counseling. Gendlin was particularly interested in processes of bodily felt meaning (felt sense) and its congruent symbolization through specific inner reference to immediate process "to focus on the ongoing experiencing."

Publications: In 1962 Gendlin published his phenomenological concept for philosophy and psychology: *Experiencing and the creation of meaning*. A philosophical and psychological approach to the subjective. Here basic concepts and assumptions can be found, how to keep personal, subjective meaning within the "objectifying" scientific frame of science and theory-building. Gendlin explicated systematically this way of being (and researching) in a cosmos where subjectivity is not to be avoided as chaos but is conceptualized as the given ground and order of existence (embodied living, thinking, acting...) in his opus magna "A process model" in 1998. This might be classified as a paradigm shift; this would explain the difficulty of understanding this approach as kind of incommensurability of Gendlin's concepts within the traditional systems of psychology and philosophy.

1.3 Within the psychological development of experiential concepts Gendlin published a paper on an experiential approach to psychotherapy, reformulating and extending Rogerian concepts of personality change; the concepts derived from experiencing which are drawn from the bodily existence of client and therapist/counselor are more than is implied by the Rogerian concept of "organismic valuing": one of Gendlin's central concepts is, that the therapist's main role is to help the client to stay with his/her experiencing during therapy. The zig-zag between feeling/sensing and thinking are conceptualized as an integral bipolar process: feeling in thinking and thinking in feeling. The "...ing" indicates the grammatical form of gerundive indicating a process just happening. Gendlin took this from Dilthey's German term "Erleben" which he translated as "experiencing" in contrast to experience ("Erfahrung" in German). In 1986 he published his work on *Focusing-oriented Psychotherapy*. Gendlin applied his Focusing process concepts to decision making in an early article (Gendlin, 1971), where he explicated the process steps of Focusing. We illustrate some of his basic concepts within some facets of a process-guided decision-making process. (Gendlin, 1959, 1962, 1971, 1978, 1996, 1997, 2004, 2009; Gendlin and Zimring 1953).

2. Concepts for Experiential Decision-Making (EDM)

The term “experiential” is used in a twofold way: it refers to the direct reference which occurs when we focus our attention on our body while searching for words to explicate what we want to say in this moment, and in a second way when we use concepts which are already given (e.g. by any theoretical approach) in an experiential way and thus becoming aware what a term could mean “for me” in relevant aspects. Both options are used in EDM: facilitating the understanding of “my feel” connected with a decision in the moment. And using concepts of decision-making research to find implicit meaning of a decision situation can lead to the result to find ways to get out of the intricateness which might be experienced as unclearness or blocked inner process.

2.1 Human decision-making as a bodily felt process

Every day-life use of the murky feel which comes with a decision situation is often taken as a recommendation like: if it feels good, do it – if it feels murky/bad, don't do it.

By Experiential Methods you can get more information – with felt precision

Felt sense refers to the bodily resonance to a topic or situation, usually perceptible in the chest and abdomen when attention is focused on it. Instruction to let a felt sense form: “What do you feel bodily when you focus your attention on your decision right now (paying attention to the chest/abdominal area)?”

Felt Sense is a key concept in the Experiential Approach; Gendlin provides a precise methodical approach to a person's immediate experiencing of meaning, which often still lacks the words to express this intricacy. An experienced listener can help to stay with the inner process and carrying forward the inner process of sense-making and understanding precisely the body signals.

Example

In the following example we use the word “Listener” to signify the function in the facilitation process of a companion (counsellor, therapist, process guide...). Moments of pausing to focus on the bodily felt sensing are signified by underlined dots ...

The decision maker is facing a situation of separating from his wife:

Listener: (after the decision-maker has described his family situation:
I would like to invite you to sit back a little bit and focus your attention to your body –
how does your body feel about what you are talking about?

Decision-maker: "I feel kind of pressure in the stomach area..., and a twinge in the heart
...

Listener saying back: "Pressure in the stomach area ...Twinge in the heart"

Decision maker: ... yes... (sensing the bodily resonance)... that's it ... And a slight stitch
... like a flash in the background

Listener: ...and a slight stitch, like a flash in the background"

(Now explicating the sense of these body reactions within the decision-making situation:)

Listener: "To which aspect of your decision does the body signals point to?"

Decision-maker: while keeping in touch with the "...": The pressure in my stomach has
to do with our child... I am concerned that my son is shaken by the situation that I could
cut him off from my presence.... It brings back my own feeling when my parents
separated ...

The twinge in my heart is connected with a kind of sadness about the rough end of our
love-story... that's... like a defeat, not being able to keep my relationship functioning, a
little bit like a loser... and the flash in the background brings up a general questioning
about me... am I a person who is worth to be loved at all...

Listener says back the key words: "body resonance of cutting off your son ... losing
relationship... questioning your person to be love-able...
how does that feel bodily?"

Decision-maker: "pfff... hard to stand... a wish to run away
and at the same time there is a kind of relief to face my situation as I am experiencing it –
as if air is going off a balloon which was too much blown up... and interested to look and
care for me and the situation how I could handle it in a constructive way..."

Felt shift - bodily perceptible bodily change, when in the solution process, gradually or
abruptly, a new perspective can be bodily experienced.

Example (continued):

Decision-Maker: "It's true... I want to get out of the situation... Continuing to wait makes
me sick... that really puts pressure on me..."

And yes, it is also true, it hurts my heart to think of just leaving - I wish for a solution,
without new injuries, on both sides, especially for my son

Listener: when you say this to yourself again: I don't want to keep waiting - and I want to make sure that no new injuries occur.... especially for your son...How does that feel?

Decision-maker: speaks the sentence to himself - breathes a little bit: ... yes would be better, if that would go like that ...

3. Basic attitudes of EDM

In the EDM process basic attitudes of the decision maker and the process facilitator are important for the success of the process. We differentiate two aspects.

- On the part of the decision-maker

When talking about the decision:

Focus attention on the chest/abdominal area

Leave pauses to be able to feel what my words trigger in me

Let the words said back by the listener have an effect, if necessary change them if they do not yet fit exactly

Repeating reformulations of “my decision”, feeling how “my body” reacts

- On the part of the listener

Paying attention to what the decision-maker says

Saying key words back

Leave pauses so that the decision-maker can feel how and where the words are felt in the body

Give process suggestions, allow the decision-maker time and space to explore the impact of the suggestions

Saying key words back and making inner space for pausing. Feel the bodily resonance

4. Agreements for Experiential Decision Making (EDM)

For using Experiential Decision-Making the following agreements between decision maker and listener have proven important:

No decisions are made during the session

The EDM session helps to understand more precisely the difficulty or the “crux” connected with the decision and to feel more autonomous with the decision.

If it is too delicate for the decision-maker to speak out content that is blocked by shame, fear of exposure, loss of face, moral condemnation, etc., the decision-process can also be accompanied without revealing the contents of the decision.

5. Post-decisional regret: a “mainstream-concept” of decision-making, experientially used in the EMD- example

"Post-Decisional Regret“ is a well-known concept within the mainstream research on decision-making (e.g. Kahneman 2011).

The background of this concept is the phenomenon that people are afraid in decision-making situations to regret a once made decision later (post-decisional regret) - due to the fear of making a wrong decision, decision blockades often develop and make it difficult to make a decision. The experiential use of this concept can be applied in facilitating decision-making: inviting the uneasy feel expected after the decision-making about an option by presuming the decision option had already be made, the uneasy feel can be explored more precisely on a deeper bodily level of felt meaning; so ways out can be developed with experiential precision to feel free.

Processing a blocked decision situation is not about finding a “best option” on the content level. Instead: Each option is gradually developed by referring to the bodily resonance / Felt Sense until the decision-maker can feel comfortable with it.

6. Future investigation

The qualitative investigation of process quality and outcome is planned.

By now, there are already research findings on Focusing and the Experiential Approach (Gendlin & Zimring 1955, Hendricks 2001, Krycka, K., Ikemi, A., 2016). In Germany there is a long discussion on the impact of experiential methods and the role of inner key processes and Focusing in therapeutic change (Sachse, Atrops, Wilke and Maus 1992).

The investigation of the EDM method is carried out in several steps:

First, existing transcripts of decision-making coaching sessions conducted as part of continuing education in person-centered and experiential/focused counselors, coaches, and therapists will be reviewed for interventions in decision-making situations and their effectiveness recorded.

These results will be incorporated into a manual for EDM, which will be used to conduct targeted further training for decision support. The manual will include professionally

trained Focusing facilitators as well as staff of counseling centers who work in the context of supervision.

The EDM processes are recorded in each case and transcribed anonymously by the participants (in compliance with the ethics standards).

7. Application of Experiential Decision-Making

The effectiveness of the methodology of decision-making will be initially investigated in all areas of life. The selection of cases in the project results from the concerns of people seeking support (consulting, coaching, counseling). This is to gain first experiences with an unselected field of persons and decisions. In the next steps, specific questions can be investigated, which can also imply modifications in the procedure.

Case examples: Organ donation card (situation in Germany): Broad social discussion whether organ donation should be "preset" as option (as in other countries). Underlying assumption: citizens are too lazy to apply for a card (liberal paternalism Thaler & Sunstein). Initial pilot studies (Fuhrmann, 2021; Rösel, 2021) with the EDM show "Inaction" is due to the complexity of aspects (structure-bound experiencing), citizens lack support to clarify the felt complexity. The result of the decision-making support must be open, in order to decide consciously as a person. That is a clear difference to approaches who use psychological concepts for persuasive communication. In a similar way, the topic "decision to get vaccinated" can be investigated. We plan to publish the results of EDM research more in detail in the next year (Feuerstein 2022, in press)

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PROGRAM Vth LEIPZIG-ÉVORA SCIENTIFIC MEETING IN PSYCHOLOGY

6th & 7th September, 2021 — Leipzig

The University of Leipzig and the University of Évora – Institute for Psychology, jointly organize the 5th **Leipzig-Évora Scientific Meeting in Psychology**, with the purpose of consolidating academic and scientific cooperation between both institutions, fostering mutual knowledge of scholars, scientists and students, broadening common scientific production and reinforcing institutional relations.



Scientific Program

Monday, 06. 09. 2021, 10 a.m.

10.00 Opening of the Conference

10.05 Conference Part 1 Diving to the History of Psychology

Nadine Schumann (Leipzig, Germany) Wilhelm Wundt's life and work

Evelin Witruk (Leipzig, Germany) Historical Aspects of Educational Psychology

Konrad Reschke (Leipzig, Germany) Wundt and Clinical Health Psychology

13.00 Conference Part 2 - Psychological Aspects of COVID 19 Pandemic

Galindo (Evora, Lissabon, Portugal) Psychology of disaster and Pandemics

Adelinda Candeias (Evora, Comprehensive Health Research Center (CHRC)- Portugal). Impact of covid19 pandemic in psychological wellbeing of adults - a biopsychosocial approach.

Marcus Stueck (Leipzig, Germany) – Pandemic research – first results and conclusions

Konrad Reschke (Leipzig, Germany). Post pandemic resiliency training – What are the most important ingredients?

15.00 Conference Part 3 Stress and mental health promotion

Sokolova (Charkiv, UIPE, Ukraine). Clinical and psychological peculiarities of bodily self-identity and self-perception disorders in young individuals

Vyacheslav Zavorotny (Charkiv, UIPE, Ukraine). Psychosomatic disorders in combatants.

Udo Kranich (Leipzig, Germany). A driver improvement program for stressed drivers

Stöber, F. & Gelbricht, C. (Leipzig, Germany). Mastering parenting stress optimistically

Alexandra Wodner (Leipzig, Germany) Mental Health in a Platform Context: How Mobile Applications can Assist the Improvement of Mental Disorders with Special Consideration of the Individual Case of ama mind

17.30 Trip to the Wilhelm Wundt Places in the City of Leipzig

Tuesday, 07. 09. 2021

9.00 Conference Part 4 - Education and Health

Lilia Marcelino & Conceição Costa (CICANT, Universidade Lusófona). Space adventure: Defend the planet!: A video game to support mathematics in children with special needs

Heldemerina Pires (University Evora, Portugal). The perception of interparental conflict and school retention in a sample of students from professional courses

Wojciech Pisula (Poland, University Warschau). What studies on animals can tell us about human curiosity

11.00 Conference Part 5 Intervention and Education

Feuerstein, H. J. (Gengenbach, Germany). Conceptualization and empirical testing of a decision method based on the Experiential Approach.

Gloria Franco (Madeira). Teachers Perceived Emotional Intelligence Profiles and Their Relation to Burnout and Engagement

Miae Yoo (South-Korea). Psychological Acculturation and Intercultural Education among North Korean Refugees in South Korea

Closing of the Conference

Evelin Witruk – Closing and looking forward into the year 2022