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PERSONALITY TRAITS, FAMILIAL-FACTOR AND NEGLECTFUL BEHAVIOR AS PREDICTORS OF AGGRESSIVE BEHAVIOR AMONG STREET CHILDREN

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Abstract

The emergence of street children in Nigeria comes as a result of family breakdown. With the increasing individualistic society such children quickly learn to survive on their own. Some studies have been carried out to establish factors predicting aggressive behavior among street children with varied results. This study investigated personality traits, familial factors and neglectful behavior predicting aggressive behavior among street children in Lagos. The study adopted cross-sectional survey design using purposive sampling technique to select six areas with high concentrations of street children. Data were collected from 384 participants using validated questionnaires. Data were analyzed using hierarchical multiple regression and tested one hypothesis at $p < 0.05$ level of significance. The result revealed that personality traits, familial factors and neglectful behavior predicted aggressive behavior among street children. Also, neuroticism, agreeableness and neglectful behavior independently predicted aggressive behavior among study participants. The novelty of this study is that it is the first time psycho-demographic factors are used to analyze aggressive behavior among street children in the emerging mega city of Lagos State. It is recommended that government and non-governmental organizations should put programs in place to reduce incidence of street children and alleviate endemic poverty among the populace.

Keywords: *personality traits; familial-factor; neglectful behavior; aggressive behavior; street children.*

1. INTRODUCTION

Aggression is any act meant to cause harm to one person or the others. Aggression could be both psychological and physical. Psychological aggression involves the use of words to cause harm which ranges from shouting aloud to a child, accusing, blaming, lecturing, shaming, commanding, and ordering (Le et al., 2023). On the other hand, physical aggression is when psychological aggression is taken too far resulting in action that can cause injuries to the other persons such as fighting, throwing of stones, or the use of dangerous weapons in self-defense

(Soremi, 2022). Aggression could be reactive which is emotionally charged, poorly controlled, and impulsive or proactive which is or more controlled and non-emotional (Le et al., 2023).

One group of individuals whose aggressive behaviors that need to be studied is the street children also referred to as ‘teenage beggars’, ‘street kids’, ‘homeless kids’, ‘street boys’, ‘parking boys’, ‘city nuisance’, ‘children in difficult circumstances’ and ‘street-connected children’. There is no universal definition for street children. However, the study adopted definition proffers by Inter-NGO (cited by Theirworld, 2024) where street children is described as “any girl or boy who has not reached adulthood [...] for whom the street has become his or her habitual abode/or sources of livelihood and who is inadequately protected, supervised or directed by responsible adults”. Street children is further delineated into street-working children, to mean “those who have homes to which they return at night but stay on the street as a means of sustenance, begging or engaging in petty trading and sometimes other vices” (Consortium for Street Children, 2023). On the other hand, street living children refers to “those who for the majority of the time sleep on the street and remain in limited or no contact with their family of origin” (Consortium for Street Children, 2023). Street children are more or less “abandoned” by would-be primary caregivers or themselves “abandoning” their families and homesteads to live or to stay in the street (Ozoh et al., 2022).

The total number of street children varied from one continent to another and from one country to another. UNICEF (2020) put the global estimates of street children at more than 150 million, in sub-Saharan countries at 80 million, while in Nigeria, it is estimated at about 20 million (Alabi, 2022). The prevalence of street children comes with attendance problems such as stealing, pick pocketing, burglary, vandalism, cultism, kidnapping, cybercrimes, substance abuse, prostitution, child trafficking, etc.

Some factors predicting aggressive behavior among street children have been investigated. This study investigated three factors. First considered is personality trait which is described as a consistent behavioral pattern of an individual over time (McCrae & Costa, 2008). The big five personality traits of neuroticism, extraversion, agreeableness, openness to experience and conscientiousness formulated by (Costa & McCrae, 2017) have been used as a working template to explain human personality make up. Neuroticism is about individuals who are nervous, moody, emotional, insecure, and have unstable character (Costa & McCrae, 2017). Extraversion refers to individuals who are sociable, talkative, gregarious, assertive, active, ambitious and expressive (Costa & McCrae, 2017). Agreeableness characterizes individuals who are kind, cooperative, sympathetic, helpful, courteous, and warm (Costa & McCrae, 2017). Openness to experience conceives of individuals who are curious, imaginative, creative, complex, refined, sophisticated (Costa & McCrae, 2017). Finally, conscientiousness characterizes individuals who are dependable, organized, reliable, ambitious, and hardworking (Costa & McCrae, 2017; Olu, 2020).

Pabbathi et al. (2014) found personality traits as a predictor of crime and aggressive behavior among different populations and across different samples.

Individuals' tendency to engage in aggressive behaviors is rooted in their personality traits (Costa & McCrae, 2008; Levine & Jackson, 2004; Listwan, 2001). Specifically, extraversion and neuroticism have been found to be the prime causes of aggressive behavior (Levine & Jackson, 2004). High level of neuroticism leads to higher propensity to behave aggressively (Rantanen et al., 2005; Levine & Jackson, 2004). Also, the combined effect of high extraversion and high neuroticism interferes with learning social rules and conditioning, increasing the likelihood of aggressive behavior (Levine & Jackson, 2004). Thus, personality traits predicting aggressive behavior among street children would reflect global family conflict.

The second factor considered is familial factor which has to do with family relationships that exists among family members. It describes the symbolic interaction that exists between individuals recognized to be a member of a family unit (Bowen Center for the Study of the Family, 2016). Familial factors in terms of family relationship tend to predict the prevalence of aggressive behavior among street children. According to the theory, the family is the unit of social integration. Through identifying social-emotional distress and harms and good parenting methods, the family is likely to have a significant role in reducing and preventing aggressive behaviors. Considering the significant relationship observed between the roles dimension of family relationship and aggression, it noted that families are healthier if the family members feel more satisfied with their roles and responsibilities and when the tasks are fairly divided among them.

Studies investigating familial factor of family relationship as the cause of aggressive behavior among street children or whether their aggressive personality leads to the strain in their family relationship confirmed that the presence of aggressive personality makes the strain in family relationship worse (Ismail et al., 2017; Zakaria et al., 2021; Vaughn, 2020). Another line of study on the causes of aggressive behavior is the type of relationship between the parents and their children. The desirable and undesirable behaviors of the family members affect each member. If proper behavioral patterns are set in the family, the children also grow up with healthy behaviors. Moreover, given the significant relationship observed between affective responsiveness and affective involvement, it can be said that families that properly respond to each other's emotions and understand each other's values and interests can create a suitable emotional atmosphere at home and thus prevent the suppression of the children's emotions and its subsequent harmful effects (Vaughn, 2020).

Finally, neglectful behavior is considered as a factor likely to predict aggressive behavior. Neglectful behavior describes form of abusive behavior of caregivers (e.g., parents) that results in depriving a child of their basic needs such as the failure to provide adequate supervision, food, healthcare, clothing, or housing as well as other physical, emotional, social, educational, and safety needs (psycnet, 2022). Neglected children are reported to exhibit aggression in form of argument, cruelty to others, destruction of property, disobedience, threatening people and fighting or physically attacking others (Pabbathi et al., 2014). Alink et al. (2012) stated that when children have been maltreated, then they showed higher

levels of aggressive behavior. This was echoed by Connor et al. (2003) who investigated the relationship between lifetime histories of neglectful behavior defined as physical abuse and aggression behavior. They found that clinically referred abused children scored higher on measures of aggression and significantly higher on measures of reactive aggression and verbal aggression than clinically referred none-abused children. Also, neglectful behavior shown in childhood was found to predict aggressive behavior even well into adulthood (Kolla et al., 2013). This finding suggests a strong influence of childhood neglect (physical abuse) on the development of aggression that persists over the lifespan. Therefore, there is a strong association between neglectful behavior (maltreatment) in childhood and aggressive (criminal) behavior in adolescence and adulthood across many studies (Dewi & Kyranides, 2022; Kolla et al., 2013; Pabbathi et al., 2014).

The psychological causes of aggressive behavior among street children have become an emerging theme that need to be investigated. Some studies that have investigated causes and problems of street children's behavior have produced varied results. Also, studies that examined psychological and familial factors on aggressive behavior among street children in Nigeria tends to be scanty thus leaving left gaps in knowledge that need to be filled.

2. OBJECTIVES AND HYOTHESIS

Therefore, the purpose of this study was to investigate personality traits, familial factors and neglectful behavior as predictors of aggressive behavior among street children in Lagos, Nigeria. The research questions raised to guide this study were: Would personality traits, familial factors and neglectful behavior predict aggressive behavior among street children in Lagos, Nigeria? And would there be gender difference on aggressive behavior among street children in Lagos, Nigeria?

The finding of this study would help to explain personality traits, familial factors and neglectful behavior contribution to the emerging issues of aggressive behavior perpetuated among street children in Lagos, Nigeria. In addition, understanding the personality traits and familial factors predicting aggressive behavior among street children would help government, NGOs and other stakeholders in planning for the re-integration of this vulnerable group of adolescents back into the society as useful citizens.

The hypothesis raised and tested in this study was: Personality traits, familial factor and neglectful behavior would jointly and independently predict aggressive behavior among street children in Lagos, Nigeria.

3. METHOD

The study was conducted to explore how personality traits, familial factor and neglectful behavior contribute to aggressive behavior among street children in the cosmopolitan city of Lagos, South-west Nigeria. Lagos is the commercial nerve center of Nigeria, a mini Nigeria where nearly 250 ethnic groups are represented at least with one individual. The study adopted cross-sectional survey research design

while data were collected using validated questionnaires. The study was conducted in six Local Government Areas (LGAs): Agege LGA, Oshodi/Isolo LGA, Mushin LGA, Amuwo-Odofin LGA, Lagos Mainland LGA and Kosofe LGA. These LGAs were purposively selected because of the high concentration of street children. Also, the participants for data collection were conveniently selected for the distribution of research questionnaires. The study calculated sample size by using Cochran formula $N = \frac{z^2pq}{e^2}$, where confidence level was 95%, margin error was +/-5% and standard deviation used was .05 to arrive at the sample size of 384.

Participants

The study collected data using four validated questionnaires.

The Brief Family Relationship Scale (Fok et al., 2011) was used to measure an individual's perception of the quality of their family relationship functioning. The scale consisted of 19-item with 3-subscale of Cohesion (8-item), Expressiveness (4-item) and Conflict (7-item). The scale was presented in a 3-point Likert's format ("Not at all, Somewhat," and "A lot."). Sample items include: "In our family, we really help and support each other" and "In our family we spend a lot of time doing things together at home". The Cronbach's alpha for the subscales calculated were Cohesion (0.83) and Conflict (0.80) and Expressiveness (0.65) while for the full BFRS (0.88) while for the current study, composite Cronbach's alpha of 0.81 was calculated.

In addition, the Big Five Inventory 10 (Rammstedt & John, 2007) which was used to assess the five components of personality traits of openness to experience, conscientiousness, extroversion- introversion, agreeableness and neuroticism. Each factor contains two items which were presented in a 5-point Likert's format ranging from 1—strongly disagree to 5—strongly agree. Sample items include: "I see myself as someone who is reserved" and "I see myself as someone who is generally trusting". The authors Cronbach's alpha reported varied between 0.65 and 0.75 and for this study, Cronbach's alpha of .61 and .69 was calculated.

Furthermore, the study used the Multidimensional Neglectful Behavior Scale (Straus et al., 2011) to evaluate neglectful behavior. The scale consisted of 20-item presented on a 7-point Likert's format ranging from 1 = Once that year , 2 = Twice that year , 3 =3-5 times that year ,4 = 6-10 times that year ,5 = 11-20 times that year , 6 = More than 20 times that year,7 = Not that year ,but it happened before, 0 =This has never happened. Sample items include: "Took me places where I could learn things, like a Zoo or library" and "Paid no attention to me". The Cronbach's alpha for the original scale was 0.69 and in the current study, Cronbach's alpha of 0.65 was calculated.

Finally, Aggression Scale (Orpinas & Frankowski, 2001) was used to establish aggressive behavior which measures behaviors that might result in psychological or physical injury to other individuals such as verbal aggression (teasing, name-calling, encouraging students to fight, threatening to hurt or hit) and physical aggression (pushing, slapping, kicking, hitting) as well as information about anger (getting angry easily, being angry most of the day). It consisted of 11-items presented on a 6-point Likert's format ranging from 0 times through 6 or more

times. Sample items include: “I teased students to make them angry” and “I got angry very easily with someone”. These components were summated into a single scale. The author reported Cronbach’s alpha of 0.85 and for the present study, Cronbach’s alpha of 0.81 was calculated.

Permission to carry out this study was sought for and obtained through the letter of introduction from the Department of Psychology, University of Ibadan, Nigeria used by the researchers to identify themselves by the relevant individuals in the course of data collection. Since many of the potential participants were illiterates, the researchers sought the assistance of the few of them who were able to read and understand Pidgin English. Two of the researchers were fluent in Yoruba and Hausa language which was an added advantage in approaching and discussing with the potential participants. Wherever the potential participants were met, the researchers interacted with them and sought their permission to participate in the study. They were briefed on the purpose of the study. Those who agreed to participate in the study and were unable to read and write were interviewed using the questionnaires and their responses were recorded by the researchers. Those who were able to read and write were given the questionnaire to complete with the guidance of the researchers.

It was after the interviews and filling of the questionnaires by those who voluntarily participated in the study that the researchers asked them whether they would take snacks and sachet water. At no time were the participants aware that there was any incentive for them before they participated in the study. The interviews and the administrations of the questionnaires went for 12 days in order to have representative samples of street children in the six local government areas selected for the study. A total of 389 questionnaires were administered both in interview format and in self-completion. During the final screening and coding, five questionnaires were not properly filled and were removed thus left with 384 valid questionnaires used for the analysis.

The study used IBM SPSS version 23 software to analyze data collected where both descriptive and inferential statistics were computed. The hypotheses were tested using stepwise multiple regression analysis. All hypotheses were accepted at $p < 0.05$ level of significance.

4. RESULTS AND DISCUSSION

First, a preliminary evaluation of the relationships among study variables was executed using zero-order correlation and the result is presented in Table 1.

Table 1. Inter-correlation among study variables

Variables	Mean	SD	1	2	3	4	5	6	7
1 Aggr-Bhr	14.00	1.12	-						
2 Negl-Bhr	26.98	8.02	.414*	-					
3 Extra'sion	.89	.05	.012	.073	-				
4 Openness	.79	.01	.103	-.108	.278*	-			
5 Agreeable	.74	.02	-.321*	.217*	.179*	.301*	-		

6 Neuro'ism	.86	.03	.439*	-.164*	-.293*	.113*	-.381*	-
7 Con-ness	.82	.02	-.091	.044	.192*	.189*	.101*	.127*

NB Aggr-Bhr = Aggressive Behaviour, Negl-Bhr = Neglectful Behaviour, Con-ness = Conscientiousness, Extr'sion= Extraversion, Neuro'ism = Neuroticism
* Significant at 0.05

Table 1 presents results of the zero-order correlations on the relationship among personality traits, familial factors and neglectful behavior and aggressive behavior. The result indicated that neglectful behavior significantly and positively correlated with aggressive behavior ($r = .414, p < .05$). This implies that neglectful behavior leads to more aggressive behavior among street children. In other words, aggressive behavior of street children increases with increase in neglectful behavior. Also, the result showed that neuroticism personality trait ($r = .439, p < .05$) and agreeableness traits ($r = -.321, p < .05$) had significant relationships with aggressive behavior among study participants. This means that aggressive behavior of street children increases with neuroticism but decreases with agreeableness. Because of the significant and positive relationship obtained among the study variables, the data were used to run the hierarchical multiple regression analysis.

Personality traits of extraversion, neuroticism, conscientiousness, agreeableness and openness to experience, the familial factor of family relationships and neglectful behavior would jointly and independently predict aggressive behavior among street children in Lagos, Nigeria. The hypothesis was tested using hierarchical multiple regression analysis and the result is presented in Table 2.

Table 2. Hierarchical regression analysis showing the joint and independent prediction of personality traits, familial factor and neglectful behavior on aggressive behavior among street children in Lagos, Nigeria

Predictors	Model 1		Model 2		Model 3	
	β	t	β	t	β	t
Family relationship	.042	1.136	.038	1.09	.029	1.02
Extraversion			.068	1.10	.041	1.00
Openness			.116	1.32	.102	1.09
Agreeableness			-.312	3.562*	-.286	3.21*
Neuroticism			.358	3.72*	.306	3.27*
Conscientiousness			.103	1.07	.087	1.01
Neglectful behavior					.341	3.61*
R		.090 ^a		.182 ^b		.254 ^c
R ²		.008		.033		.065
ΔR^2		.008		.025		.032
Df		1,215		6, 210		7,209
F		3.424		7.129**		9.588**
ΔF		3.424		10.753**		14.061**

*Statistical Value significant at the 0.05level (2-tailed). Source: Authors' field work (2023)

Table 2 presents the hierarchical multiple regression analysis of personality traits, familial factors and neglectful behavior on aggressive behavior among street children in Lagos, Nigeria. The results in Model 1 of Table 2 revealed that familial

factor of family relationship did not predict aggressive behavior among street children in Lagos [$R^2 = 0.008$, $F(1, 215) = 3.424$, $p > .05$]. This means that family relationship was not a determinant of aggressive behavior among study participants. When the children had left home, nobody to take care of them, as the common parlance in Nigeria is: *You are on your own!* Definitely the street children had no control but to do what they like, being aggressive in behavior would be a best alternative. This supported the family system theory that when there is no relationship in the family, children or adults go their respective ways. Deviant behavior tends to be readily practiced. This finding supported work by Soremi (2022) that lack of family relationship did not help to knit individuals together. Also, the study contradicted Vaughn (2020) and Zakaria et al. (2021) findings that family relationships tend to be a significant predictor of aggressive behavior.

When personality traits were introduced into the regression analysis (See Model 2), the result showed an increase in the joint influence on aggressive behavior. Thus, familial factor of family relationship and personality traits (extraversion, openness to experience, agreeableness, neuroticism and conscientiousness) jointly predicted aggressive behavior among street children in Lagos [$R^2 = .033$, $F(6, 210) = 7.129$, $p < .05$]. The introduction of personality traits increased the percentage variance to 3.3% indicating that personality traits contributed a significant 2.5% of the variance observed in the aggressive behavior among street children [$F\Delta(1, 217) = 10.753$, $\Delta < .05$, $R^2\Delta = .025$]. This finding connotes the importance of personality traits in aggressive behavior. Personality trait of neuroticism independently predicted aggressive behavior in this study. Street children who are neurotic stand to display aggressive behavior at the slightest provocation. They are nervous, moody, emotional, insecure, and have unstable characters. This finding lent credence to previous results where aggressive behaviors were traced to adolescents who were profiled as neurotic (Costa & McCrae, 2017; Pabbathi et al., 2014; Zakari et al., 2021).

Furthermore, when a neglectful behavior factor was introduced into the regression model (See Model 3), the result indicated an increase in the joint prediction of aggressive behavior. Familial factor of family relationship, personality traits of extraversion, openness to experience, agreeableness, neuroticism and conscientiousness and neglectful behavior jointly predicted aggressive behavior among street children ($R^2 = .065$, $F(7, 209) = 9.588$, $p < .05$). Hence, the introduction of neglectful behavior increased the percentage variance to 6.5% indicating that neglectful behavior contributed a significant 3.2% to the variance in the aggressive behavior among street children ($F\Delta(1, 216) = 14.069$, $p < .01$, $R^2\Delta = .032$). Neglected children become a problem to themselves, their family and the society at large. Children lacking care and attention tend to be grieved and unhappy. The frustration of not having food, shelter, being bully by others would lead to aggression which support Berkowitz (1989) revised frustration-aggression theory: What would generate aggressive behavior would depend on the extent to what would produce negative affect (p.71). This finding supported the result by Taiwo (2023) who found that adolescents in urban environments were lure into crimes due to their migration to the urban settings with

no means of livelihood.

5. CONCLUSION

The novelty of this study is that it is the first time psycho-demographic factors are used to analyze aggressive behavior among street children in the emerging mega city of Lagos State. This study was on personality traits, familial factors and neglectful behavior as predictors of aggressive behavior among street children in Lagos, Nigeria. It is concluded that neuroticism and agreeable personality traits coupled with neglectful behavior significantly contributed to aggressive behavior among street children in Lagos, Nigeria. The study recommends that stakeholders such as international organizations, orphanage homes and NGOs should be sensitized about the potential harm that neglectful behavior, unfavorable family relationships (or support systems) and personality traits of neuroticism and agreeableness are having on street children at any stage of their development. Also, counselors and other mental health professionals should pay close attention to the mental health development of these street children which would have affected their mental stability and psychological well-being.

Despite the contributions of this study, some limitations were identified which need to be attended to in further studies. For example, data for the study were collected using self-reported questionnaires which were not free of response bias. Further studies should employ focus group discussions and observation methods to triangulate data collected using self-report. Furthermore, six out of 20 LGAs with the sample size of 364 would not allow for the generalization of the study findings beyond these LGAs. Further studies should include more LGAs and increase sample size to allow for generalization beyond the study population. Finally, the three independent variables investigated in this study were not exhaustive; therefore, further studies should include social support, self-esteem, and learned helplessness.

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THE RELATIONSHIP BETWEEN ATTACHMENT STYLE, SELF-ESTEEM AND SEXUAL SATISFACTION IN WOMEN

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Abstract

The present study aims to deepen the relationship between attachment style formed during childhood and subsequently consolidated throughout development, including during adulthood, and another fundamental aspect for maintaining a high quality of life, namely self-esteem, and the dimension of sexual satisfaction among the female population. Based on recent findings in the specialized literature, there is an emerging need to enrich scientific knowledge regarding the weight that emotional background and relational abilities, both with oneself and with others, have in shaping the subjective feeling of relational satisfaction in general and sexual satisfaction in particular. Starting from the two proposed psycho-behavioural constructs, which are in constant transformation and evolution throughout life, the main objective of this research is to investigate the relationship between attachment style, self-esteem, and sexual satisfaction in women. Despite humanity advocating for authentic, intimate, and long-lasting interpersonal relationships, very few people manage to experience them at a deeper level due to emotional barriers that limit them.

Keywords: *attachment style, self-esteem, sexual satisfaction*

1. INTRODUCTION

This work emerged from observing the curiosities of modern humans, who are in a continuous search for self-discovery, with an emerging need to know themselves, correct their behaviours, emotions, and experiences in order to achieve authentic, long-lasting, and satisfying relationships.

Thus, this research aims to delve into these constructs concretely and pragmatically to provide a clearer understanding of primary needs and the necessity of fulfilling them for a better quality of life. Attachment theory is considered a theory about the imperative need to find a partner for reproduction and to protect each other from imminent dangers that may arise along the way. However, recent research suggests that it can also be seen as a theory of emotional structuring and regulation.

The term 'attachment' refers to a complex intercommunication structure with a person (idea, ideology, or group). It contains strong affective symbolic elements and involves complex behavioural expressions: disinterest, desire for giving, protection,

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and defense. According to Ann Birch (2000), attachment can be defined as a lasting connection oriented toward a specific individual.

British psychiatrist John Bowlby (1951) was the first theorist of attachment, describing it as a 'long-lasting psychological connection between human beings' 2. His theory largely focuses on relationships and connections among people, especially in long-term relationships, including those between parents and children and romantic partners. Attachment theory was developed in response to certain Freudian psychoanalytic theories regarding human development, which emphasize two primary instincts: eros (sexual instinct) and thanatos (death instinct).

John Bowlby's observations in the 1940s demonstrated, contrary to psychoanalysis, that the attachment relationship between mother and child has a primary nature (meaning it is based on an innate autonomous system) and does not represent a secondary derivative of the child's primary need for nourishment from the mother (oral gratification). He observed that children often experience strong emotional discomfort when separated from their mothers, even if they are well-fed and physically cared for by others.

Bowlby aimed to demonstrate, and succeeded in doing so, that real-life events such as loss, separation, and fear of separation have a significant impact on child development and later on adult personality characteristics. The first year of life, early childhood, and adolescence are considered sensitive (critical) periods during which attachment behaviour develops normally or dysfunctionally in accordance with an individual's personal experience with the primary attachment model.

Attachment theory proposes that intimate relationships in childhood serve as the foundation for shaping an individual's attachment later in life, influencing feelings and behaviours in adult romantic relationships Ainsworth et al., (1978); Bowlby, (1982). Therefore, these early relationships can help couples acquire the necessary skills to assertively communicate with each other about their intimate desires and needs.

Research on early childhood from the late 20th century, as Alain Schore from the University of Los Angeles asserted, focused on the socio-emotional development of infants, their interactions with caregivers and attachment figures, the social-cultural influences on the development of young children and their families, as well as the conditions that place children and/or families at risk for optimal development.

A clinically shared concept within interdisciplinary clinical work is that of biological and psychological regulation, which applies to models of normal/abnormal functional structuring.

Longitudinal studies on securely attached children show positive outcomes in their development, according to Cassidy & Shaver, (1999). These include facilitating emotional flexibility, social functioning, and cognitive abilities. Attachment security fosters resilience in the face of future adversities.

Studies suggest that different forms of insecure attachment (avoidant, anxious/ambivalent) can be associated with emotional rigidity, difficulty in social relationships, impaired attention, difficulties in understanding others' moods, and risky behaviours. According to Schore, A. N. (1994), suboptimal attachment

experiences can predispose a child to psychological vulnerability, partly through altering the brain's neuroendocrine response to stress.

Another crucial psycho behavioural construct necessary for a better quality of life is high self-esteem. According to Branden (1987), self-esteem consists of the sum of self-confidence and self-respect. Branden describes it as a consequence of each person's way of facing life's challenges, understanding and solving problems, and seeking happiness. Research has shown that high self-esteem correlates with intuition, creativity, rationality, flexibility, independence, and the ability to acknowledge and correct errors. Conversely, low self-esteem is generally associated with defensive reactions, fear of the new and unknown, irrationality, servile or tyrannical behaviour, anxiety, and hostility.

Mark Leary (1998, 2007) likens our feelings to a fuel gauge. Relationships allow survival and prosperity. Thus, our self-esteem indicator warns us of the threat of social rejection and motivates us to act prudently in relation to others. Studies confirm that social rejection leads to decreased self-esteem and a stronger desire for approval from others. When disappointed or hurt, we feel unattractive or inadequate to others. This pain can motivate action, self-improvement, and the search for acceptance and inclusion elsewhere.

Another highly significant factor affecting self-esteem is the success-failure dynamic in interpersonal and intimate contexts. Research indicates that people experience a decline in self-esteem following rejection by a partner in a romantic relationship, and they may even develop aggressive behaviours as a result of the same stimulus.

Maintaining high self-esteem, deep self-knowledge, acceptance, authenticity, and the ability to shape life according to one's own needs are essential assets for a well-adjusted life. A healthy sense of self does not exclude caring for others or being influenced by them. It is expansive and inclusive, not rigid. The only dictate of authenticity is that we, not external expectations, should be the true authors and authorities of our lives. Being seen and accepted for who we are creates an intrinsic tension between these two essential needs.

Although both needs are equally important, there is a hierarchical order: in the early stages of life, attachment always tops the list. Our authentic self is gradually used in transactions where we ensure physical or emotional survival by sacrificing who we are and what we feel. We often don't consciously choose these adaptive mechanisms, nor can we easily remove them when they no longer serve us—they become part of us. The perceived need to conform to societal expectations becomes entangled with our understanding of who we are and how we seek love.

Sexual satisfaction, intimacy between two individuals, and the fulfilment of these needs can be influenced by the attachment style formed during childhood and fluctuating self-esteem.

2. OBJECTIVES AND HYPOTHESES

2.1. OBJECTIVES

The current research aims to identify the relationships between sexual satisfaction and marital status, explore the connection between anxious/ambivalent attachment style and sexual satisfaction, and observe how emotional self correlates with the degree of sexual satisfaction.

2.2. HYPOTHESES

H1. We assume that the distribution of sexual satisfaction rankings among individuals in a relationship differs from the distribution among those who are not in a relationship.

H2. We assume that there is a statistically significant correlation between sexual satisfaction and anxious/ ambivalent attachment.

H3. We assume that there is a statistically significant correlation between sexual satisfaction and emotional self.

3. METHOD

3.1. GROUP OF PARTICIPANS

The researched sample consists of 100 respondents, with an average age of 30 years. In terms of education level, 40% of the respondents have completed secondary education, while 60% have higher education. Regarding marital status, the sample includes 40% of respondents who are not in a relationship and 60% who are in a relationship.

3.2. INSTRUMENTS

1. AAS (Adult Attachment Style) Questionnaire: The Collins and Read (1990) questionnaire measures attachment and differentiates individuals based on their attachment style. It consists of 18 items, with 6 for each attachment type (secure, avoidant, anxious-ambivalent).

2. Toulouse Self-Esteem Scale (E.T.E.S.): Developed in 1991 by N. Obayrie, C. Safont, and M. De Leonardis, this scale was published in the Journal of Applied Psychology in 1994. Inspired by existing unidimensional and multidimensional scales, it reflects a person's perception—whether more or less positive—regarding various aspects of self-identity. These aspects include emotional self, social self, physical self, academic self, and prospective self. The scale comprises 60 items with dichotomous forced-choice responses, evenly distributed across the five subscales.

3. Female Sexual Satisfaction Questionnaire: This questionnaire includes 10 items with dichotomous responses to assess women's satisfaction levels (high satisfaction, moderate satisfaction, and low satisfaction).

3.3. PROCEDURE

The questionnaires were introduced using the Google Forms platform, and respondents received an access link to complete them. The completion of the questionnaires was done online by the participants, ensuring compliance with both ethical codes and GDPR legislation. All participants were informed about the research and provided consent, fully aware of the anonymity of their identities and the research's purpose, along with the strictly statistical processing of results at the sample level.

3.4. EXPERIMENTAL DESIGN

For the research design, the following variables were analysed:

1. Dependent variables: sexual satisfaction, anxious/ambivalent attachment style, emotional self (SE).
2. Independent variables: marital status.

The design of the research follows the following model:

N_{1,2}: O_{1,2,3}

Where N_(1,2)-represents the sample divided according to marital status; O_(1,2,3)- represents the answers to the three instruments used for measurements.

4. RESULTS

Our study investigated the similarity among relationship status, attachment style, sexual satisfaction, and emotional self in a sample of 100 participants. The results revealed that women who were not in a relationship had an average sexual satisfaction rank of 31.22, while women in a relationship had an average rank of 46.07. The statistical Z value of -2.850 and a p-value of 0.004 indicated a significant difference between the two groups, suggesting that relationship status significantly influences women's experiences or behaviours.

Regarding sexual satisfaction and anxious/ambivalent attachment style, a Cohen's d coefficient of approximately 1.843 indicates a very large effect, suggesting a significant difference between the variable sexual satisfaction and anxious/ ambivalent attachment style, with a p-value of 0.001, confirming the statistical and practical significance of this correlation.

Additionally, a moderate positive correlation was found between sexual satisfaction and emotional self, with an r coefficient of 0.249 and a p-value of 0.026. A Cohen's d coefficient of approximately 0.046 indicates a small effect size, and has more statistical than practical value, indicating that higher emotional self-esteem can positively influence a person's sexual experience to some extent.

4.1. TABLES AND FIGURES

H1. We presume that the distribution of sexual satisfaction rankings among individuals in a relationship differs from the distribution among those who are not in a relationship.

Table 1 – Mann-Whitney test results for H1

Ranks				
	Marital status	N	Mean Rank	Sum of Ranks
Sexual satisfaction	Single	40	31,22	936,50
	In relationship	a 60	46,07	2303,50
	Total	100		

Test Statistics^a	
	Sexual satisfaction
Mann-Whitney U	471,500
Wilcoxon W	936,500
Z	-2,850
Asymp. Sig. (2-tailed)	,004

a. Grouping Variable: Marital status

Analysing the study results, we observe that the average sexual satisfaction rank for women who are not in a relationship (denoted as m1) is 31.22. Conversely, the average sexual satisfaction rank for women in a relationship (denoted as m2) is 46.07. This difference is highlighted by the statistical Z value of -2.850, which exceeds the standard confidence interval of +/-1.96. Additionally, the p-value of 0.004, significantly lower than the conventional threshold of 0.05, leads us to accept hypothesis H1 and reject the null hypothesis. Therefore, we can conclude that there is a significant difference in the distribution of sexual satisfaction ranks between women in a relationship and those who are not, indicating that relationship status impacts the measured ranks in the study. These findings suggest that women in a relationship may have experiences or behaviours that differentiate them from those who are not in a relationship—an aspect worth further exploration in future research.

H2. We assume that there is a statistically significant correlation between sexual satisfaction and anxious/ ambivalent attachment.

Table 2 – Spearman correlation results for H2

Correlations				
			Sexual satisfaction	Ambivalent anxieties
Spearman's rho	Correlation Coefficient		1,000	-,391**
		Sig. (2-tailed)	.	,000
		N	100	100
		Correlation Coefficient		-,391**

Ambivalent anxieties	Sig. (2-tailed) N	,000 100	.	100
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** . Correlation is significant at the 0.01 level (2-tailed).

Table 3 – Descriptive analysis for H2 variables

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Sexual satisfaction	100	1	10	7,53	2,585
Ambivalent anxieties	100	6	29	15,35	5,419
Valid N (listwise)	100				

Our analysis involved 100 participants and aimed to investigate the relationship between sexual satisfaction and anxious/ ambivalent attachment style. The results revealed a Cohen's d coefficient of approximately 1.843 indicates a very large effect, suggesting a significant difference between the variables sexual satisfaction and anxious/ ambivalent attachment style. The results revealed a moderate negative correlation, with a coefficient r of -0.391, suggesting an inverse proportional relationship between these two studied variables: as sexual satisfaction increases, anxious/ambivalent attachment tends to decrease, and vice versa. This finding is supported by a p-value of 0.001, significantly lower than the standard threshold of 0.05, confirming the statistical significance of the observed correlation.

Our study results highlight a significant link between sexual satisfaction and anxious/ ambivalent attachment style, emphasizing the impact attachment styles can have on intimate aspects of life. The discovery that anxious/ ambivalent attachment is associated with reduced sexual satisfaction could have important implications for couples' therapy and psychological interventions. Despite the large effect size, we reject the null hypothesis. This suggests that addressing attachment issues in therapy may contribute to improving sexual satisfaction and strengthening intimate relationships. Research consistently shows that people with insecure (versus secure) attachment styles tend to have less satisfying sex. The reason for dissatisfying sex: Insecure attachment styles can prevent sexual mindfulness.

H3. We assume that there is a statistically significant correlation between sexual satisfaction and emotional self.

Table 4 – Spearman correlation results for H3

Correlations				
Spearman's rho	Sexual satisfaction	Correlation Coefficient	Sexual satisfaction	SE
		Sig. (2-tailed)	1,000	,249*
		N	.	,026
	SE	Correlation Coefficient	100	100
		Sig. (2-tailed)	,249*	1,000
		N	,026	.
			100	100

*. Correlation is significant at the 0.05 level (2-tailed).

Table 5 – Descriptive analysis for H3 variables

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Sexual satisfaction	100	1	10	7,53	2,585
SE	100	0	12	7,40	3,038
Valid N (listwise)	100				

Our study included 100 participants and aimed to explore the relationship between sexual satisfaction and emotional self. The analysis revealed a moderate positive correlation, with a coefficient r of 0.249, indicating a connection between these two variables, a Cohen's d coefficient of approximately 0.046 indicates a very small effect size, suggesting that the difference between the variables sexual satisfaction and emotional self has more a statistical than practical value. Despite the small effect size, the analysis is supported by a p -value of 0.026, significantly below the conventional threshold of 0.05, leads us to accept hypothesis H3 and reject the null hypothesis. Therefore, we can conclude that there this confirming the statistical significance of the observed correlation.

The results suggest a modest link between sexual satisfaction and emotional self, highlighting that a person's emotional state can influence their sexual experience to some extent. Although the percentage of variance in sexual satisfaction explained by emotional self is small, it underscores the importance of emotional factors in sexual perception and experience. This finding has implications for therapeutic approaches targeting sexual health, emphasizing the need to consider emotional aspects in sexual treatment and counselling. Furthermore, the discoveries suggest that exploring other psychological variables could contribute to sexual satisfaction.

5. CONCLUSIONS

Our study explored the relationship between relationship status, attachment style, and sexual satisfaction, involving a sample of 100 participants. The results highlighted significant differences between women who are in a relationship and those who are not, with average satisfaction rank scores of 31.22 and 46.07, respectively. The statistical Z value of -2.850 and a p-value of 0.004 indicate a significant difference between the two groups, suggesting that relationship status significantly influences women's experiences or behaviours.

Regarding sexual satisfaction and anxious/ambivalent attachment style, a moderate negative correlation was observed with a coefficient r of -0.391, indicating an inverse proportional relationship between these variables. The results revealed a Cohen's d coefficient of approximately 1.843 indicates a very large effect, suggesting a significant difference between the variables sexual satisfaction and anxious/ ambivalent attachment style, with a p-value of 0.001, confirming the statistical and practical significance of this correlation.

Additionally, a moderate positive correlation was found between sexual satisfaction and emotional self, with an r coefficient of 0.249 and a p-value of 0.026. A Cohen's d coefficient of approximately 0.046 indicates a very small effect size, suggesting that the difference between the variables sexual satisfaction and emotional self has more a statistical than practical value.

The study results underscore the importance of relational context and emotional factors in sexual perception and experience. These findings suggest that psychological interventions and couples' therapy should consider attachment styles and emotional well-being to enhance sexual satisfaction and strengthen intimate relationships. Furthermore, the results highlight the need to further explore other psychological variables that could contribute to sexual satisfaction, providing a more comprehensive understanding of the dynamics between emotional and intimate aspects of life. In light of these discoveries, developing therapeutic strategies that address these complex aspects is essential for improving sexual health and well-being.

It is also noteworthy that recent studies on attachment insecurity, emotional regulation and sexual satisfaction, found that attachment insecurity, particularly anxious attachment, was negatively associated with sexual satisfaction. It also identified emotional regulation as a key mediator in this relationship. This study highlights the importance of considering psychological factors and communication in therapeutic settings to enhance sexual health and relationship quality, consistently with the findings of Lee & Reiner (2021). Additionally, the present study found a negative correlation between anxious attachment and sexual satisfaction and also highlighted that effective sexual communication can mitigate the negative effects of anxious attachment on sexual satisfaction, consistently with the findings of Davis & Shaver (2021).

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THE RELATIONSHIP BETWEEN EATING DISORDERS AND TRAUMATIC EXPERIENCES IN ADOLESCENTS

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Abstract

The relationship between eating disorders and traumatic experiences is a complex and sensitive topic that has drawn the attention of the scientific community and mental health professionals over the years. This connection highlights how past traumas, such as abuse, neglect, or other painful experiences, can significantly impact an individual's relationship with food and their body, as well as their ability to regulate emotions.

Data obtained from research analysis indicate a statistically significant correlation between eating disorders and childhood traumatic experiences ($p = .001$; $p < .050$) and recent ones ($p = .040$; $p < .050$). A significant correlation was also found between traumatic experiences and emotional regulation capacity, both in terms of reappraisal and suppression. Individuals who have experienced trauma may struggle to reappraise their emotions and may tend to repress or ignore their feelings. This suggests that there is a link between a history of trauma and the development of eating disorders in adolescents and young adults. The interpretation of these findings indicates that childhood and recent traumatic experiences can significantly contribute to the development and manifestation of eating disorders in these age groups.

Keywords: *eating disorders, trauma, emotional regulation, recalculation, suppression.*

1. INTRODUCTION

Eating disorders are a major mental and physical health problem globally, affecting millions of people of all ages and genders. In particular, adolescence is a critical period when these disorders can appear and worsen, having significant consequences on the individual's physical and psychological development. At the same time, traumatic experiences in childhood and adolescence can have a profound impact on young people's mental and emotional health.

This paper aims to explore the relationship between eating disorders and traumatic experiences in adolescents, with the aim of gaining a deeper understanding of the risk and protective factors that contribute to the emergence

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and development of these disorders in this age group. By addressing this topic, we aim to contribute to increasing awareness and understanding in the scientific and medical community about the complexity and impact of these mental health issues.

Childhood abuse is a serious problem that can have profound and long-term consequences for an individual's emotional development. It can be defined as any form of abusive or negligent behavior by an adult or person in authority that causes physical, psychological or emotional harm to the child. Abuse can take many forms, including physical, sexual, emotional abuse or neglect.

Numerous studies (Groth et al., 2022; Anda et al., 2006; Felitti et al., 1998; Normal et al., 2012; Teciger & Samson, 2016) have highlighted the negative impact of childhood abuse on the emotional and psychological health of the individual in the long term. Among the effects of this phenomenon are: psychological trauma, emotional regulation difficulties, attachment problems, the cycle of abuse. Childhood abuse can affect a child's ability to regulate and manage emotions appropriately. These children may have difficulty expressing and managing their emotions, which can lead to self-destructive or dysfunctional behaviors later in life. Abuse can influence the development of a child's attachment patterns, affecting their ability to establish healthy and safe relationships in the future. Adolescents who were abused as children may be at increased risk of engaging in risky behaviors such as substance use, unsafe sex, or antisocial behaviors. There is a tendency for children who have been abused to become abusers in the future, thus perpetuating the cycle of abuse in later generations. Children who have been abused can develop profound psychological trauma, including post-traumatic stress disorder, anxiety, depression, and low self-esteem (Brewerton, 2009).

Parental verbal abuse, domestic violence, and sexual abuse appear to specifically target brain regions (auditory, visual, and somatosensory cortex) and pathways that process and transmit aversive experience. Maltreatment is associated with morphological changes in the anterior cingulate cortex, dorsal lateral and orbitofrontal cortex, corpus callosum, and adult hippocampus, and with enhanced amygdala response to emotional faces and diminished striatal response to anticipated rewards. Evidence suggests that these regions and interconnecting pathways have sensitive periods of exposure when they are most vulnerable. Early deprivation and later abuse may have opposite effects on amygdala volume. Structural and functional abnormalities initially attributed to mental illness may be a more direct consequence of abuse (Teicher & Samson, 2016).

The relationship between eating disorders and traumatic experiences is a complex and researched topic in psychology. Researchers have investigated several aspects of this relationship and developed theories that explain the connection between these two phenomena. One of the theoretical frameworks in this field is the theory of vulnerability (Brewerton et al., 2009). This theory suggests that people who have been through traumatic experiences may develop a vulnerability to eating disorders as a way to cope or control feelings of anxiety or discomfort. Trauma can affect the way a person perceives their own body and food, leading to the development of unhealthy eating habits.

In addition to vulnerability theory, self-regulation theory is also relevant (Brewerton et al., 2009). This theory suggests that people who have been through trauma may develop problems with emotional self-regulation. Eating disorders can become a way to regulate intense emotions or stress, providing a temporary sense of control and comfort.

There is also research that focuses on how eating disorders can serve as a form of self-victimization or self-punishment. People who have experienced trauma may develop feelings of guilt or self-deprecation and resort to dysfunctional eating behaviors as a way to punish or self-sabotage their own bodies (Hoek & Hoeken, 2003).

Contrary to the two mentioned theories, there is also research that emphasizes the fact that eating disorders and traumatic experiences can have a mutual impact (Brewerton, 2009). In other words, eating disorders may increase vulnerability to subsequent traumatic experiences, and trauma may exacerbate eating disorder symptoms.

People who develop eating disorders (EDs) experience a lack of control over their bodies and a lack of conviction to live their own lives. Childhood trauma and associated loss of control is considered a suspected underlying mechanism of TA, as TA symptoms are an attempt to regain control. However, some symptoms of TA involve criteria of a loss of control during binge and purging episodes. The meta-analysis by Smolak and Murnen (2002) identified similarities between lack of control present in traumatic experiences and TA symptoms. In addition, abuse victims have been found to lack perceived internal personal control and seek an external locus of control, which is related to TA symptomatology (Waller, 1998).

Kong and Bernstein (2009) named three broad traumatic experiences of loss of control as predictors of TA: emotional abuse, physical neglect, and sexual abuse. Emotional abuse appears to be the most prevalent traumatic experience among individuals with AD (Carretero-Garcia et al., 2012). However, emotional abuse typically accompanies other or multiple types of abuse. These traumatic experiences cause emotional distress and affective impairments, including depressed mood, low self-esteem, and generalized anxiety (Polivy & Herman, 2002), therefore emotional trauma that is frequently experienced with other types of trauma becomes important in the study of BP risk factors. The intense, overwhelming, loss of control, and sometimes intolerable emotions resulting from the types of trauma mentioned above have been found to influence disordered eating behaviors as coping mechanisms. Focusing on food disperses emotions from trauma to food and body shape. In addition, such individuals seek control over future traumatic events and associated emotions through food control. Thus, trauma, including neglect, physical abuse, and sexual abuse, is likely to be a risk factor for the development of AD (Polivy & Herman, 2002).

Childhood experiences of neglect (Dale, 2017) and sexual abuse (Wonderlich, 2001) are associated with emotional abuse and also related to disordered eating behaviors. Johnson et al. (2002) found that individuals who experienced physical neglect in childhood were more vulnerable to experiencing various types of eating and weight problems. Specifically, parental neglect due to insecure parent-child attachments has been shown to predict increased disordered eating behavior and

symptoms such as dietary restriction and concerns about eating, weight, body shape, and episodes of binge eating (Goossens et al., 2012). In addition, childhood sexual abuse (CSA) is linked to the development of TA (Wonderlich et al., 2007), which is understood because it is believed to affect identity and body image (Kearny-Cooke & Striegel-Moore, 1994). Thus, affected individuals have been shown to develop dissociative coping styles such as overeating (Perry et al., 1995) or seek to regain control by restricting food intake. Therefore, childhood sexual abuse and neglect have been identified as risk factors for BP.

To better understand this complex relationship, research continues to investigate the factors that contribute to the development and perpetuation of eating disorders in the context of traumatic experiences. Researchers have also explored intervention and treatment modalities that take into account the past trauma of patients with eating disorders.

2. OBJECTIVE AND HYPOTHESES

2.1. OBJECTIVE

From the desire to obtain more clarity regarding the relationship between eating disorders and traumatic experiences, in the present research, the aim was to identify the way in which traumatic experiences leave their mark both on eating behavior and on the capacity for emotional regulation.

2.2. HYPOTHESES

The hypotheses of the research were that there is a significant relationship between traumatic experiences and eating disorders, and that there is a relationship between traumatic experiences and the capacity for emotional regulation (recalculation and suppression).

3. METHOD

The assessment included, among other tools, techniques and methods used during the therapeutic process, the Eating Disorders Inventory-3 (EDI-3), the Childhood and Recent Traumatic Events Scale (ERQ).

The group of subjects was made up of 40 subjects, female patients, from the individual psychology clinic (aged between 14 and 18 years old), who presented with a specific symptomatology, showing dissatisfaction with their own body and their own eating behavior and which also presented a post-traumatic symptomatology.

4. RESULTS

Following the evaluation with the EDI-3, it was observed that most of the subjects obtained high scores for Desire to be thin (DS), Dissatisfaction with one's own body (NC), Low self-esteem (SSS), Emotional imbalance (DE) and Perfectionism (P).

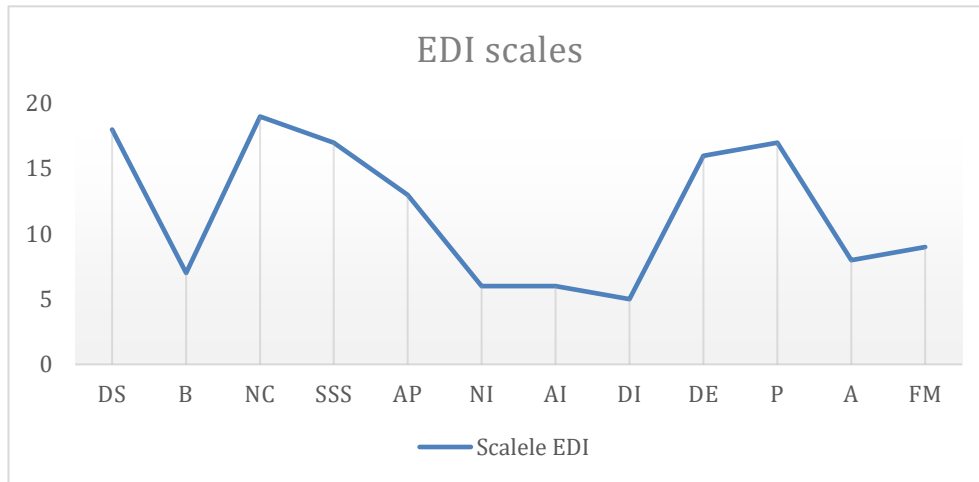


Figure 1. EDI scales for the entire research sample

The desire to be thin represents one of the basic characteristics of eating disorders and has been considered an essential diagnostic criterion, according to many classification systems. A high score on this scale indicates a strong desire to be thinner, preoccupation with diets, preoccupation with weight, and an intense fear of gaining weight. High scores on the body dissatisfaction scale indicate dissatisfaction with the shape and dimensions of some areas of the body, constituting a particular reason for concern for people with eating disorders. High scores for low self-esteem indicate feelings of insecurity, inadequacy, inefficiency, self-devaluation and the perception of the inability to reach one's own standards. High scores on perfectionism reflect rigorous personal standards of performance and demands for performance stemming from pressure exerted by parents and teachers during childhood. High scores on the emotional imbalance scale indicate a tendency towards mood instability, impulsivity, recklessness, anger and self-destructive behaviors.

Data analysis indicated a statistically significant relationship between two of the eating disorder specific scales, namely the desire to be thin and body dissatisfaction, and traumatic childhood experiences ($p = .001$; $p < .050$) and the recent ones ($p = .040$; $p < .050$).

Table 1. Relationship between eating disorders and traumatic experiences

Eating disorders	Traumatic experiences
<i>DS – desire to be thin</i>	$p = .001$
	$p < .050$
<i>NC – body dissatisfaction</i>	$p = .040$
	$p < .050$

The result of the analysis suggests a statistically significant relationship between two specific eating disorder scales, namely the desire to be thin (DS) and

body dissatisfaction (NC) and childhood and recent traumatic experiences. This means that there is a significant correlation between these variables. People who report higher levels of desire to be thin and dissatisfaction with their own body also have deeper traumatic experiences (from childhood or recent). In other words, there is a positive correlation between these dimensions of eating disorders and traumatic experiences.

Also, a significant relationship between traumatic experiences and emotional regulation capacity was reported. Traumatic experiences are significantly and negatively correlated with the recalculation dimension of emotional regulation, the correlation being equal to $-.534$, $p = .012$; $p < .050$, and their correlation with the suppression dimension of emotional regulation is significant and positive, being equal to $.632$, $p = .010$; $p < .050$. The results indicate a significant relationship between traumatic experiences and emotion regulation skills, with a focus on two aspects of emotion regulation: reappraisal and suppression.

Table 2. Relationship between emotion regulation capacity and traumatic experiences

Emotion regulation capacity	Traumatic experiences
<i>Recalculation</i>	Correl. Coeff. = $-.534$ $p = .012$ $p < .050$
<i>Suppression</i>	Correl. Coeff. = $.632$ $p = .010$ $p < .050$

Recalculation involves the ability to manage and change the dynamics of emotions in a healthy and adaptive way. The significant and negative correlation (-0.534 ; $p = .012$) with traumatic experiences suggests that individuals who have experienced trauma may have difficulty recalculating their emotions. In other words, these individuals may have trouble coping effectively and adaptively with intense or stressful emotions.

Suppression is another dimension of emotional regulation, but it involves inhibiting or ignoring emotions. The significant and positive result (0.632 , $p = .010$) suggests that people who have experienced trauma may use suppression as a strategy to cope with emotions. This means that these people may tend to repress or ignore their emotions, which is not always a healthy approach to managing emotions.

The data obtained from the analysis of the research data indicate a statistically significant correlation between eating disorders and traumatic experiences from childhood ($p = .001$; $p < .050$) and recent ones ($p = .040$; $p < .050$). A significant correlation was also found between traumatic experiences and the ability to regulate emotions, both in terms of recalculation and suppression.

People who have been through trauma may have difficulty recalculating their emotions and may tend to repress or ignore their emotions. This suggests that there is a link between trauma history and the development of eating disorders in adolescents and young adults. Interpretation of these findings suggests that

childhood and recent traumatic experiences may significantly contribute to the development and manifestation of eating disorders in these age groups.

The interpretation of these results could suggest that traumatic experiences can negatively influence emotional recalculation skills, that is, the ability to deal with emotions in a healthy way. At the same time, these traumatic experiences are associated with the use of suppression as a way of managing emotions, which can be unhealthy in the long term.

The results of the study suggest that the ability to regulate emotions is strongly influenced by traumatic experiences, which can lead to difficulties in managing and expressing emotions appropriately. This finding is consistent with the existing literature and emphasizes the importance of assessment and intervention in the management of emotional trauma in the treatment of eating disorders.

It is possible that the use of suppression as a coping mechanism for emotions is a common modality for individuals who have experienced trauma, and this may contribute to exacerbating eating disorder symptoms and impairing overall well-being. Identifying and appropriately addressing these behaviors can be essential in the management and treatment of eating disorders.

For the future, further research is needed to better understand the underlying mechanisms underlying the relationship between emotional trauma and eating disorders. Longitudinal studies could help clarify causal direction and identify protective and risk factors.

It is also important to develop and implement effective and tailored interventions for the management of emotional trauma and the treatment of eating disorders, including evidence-based therapies and primary prevention programs. A holistic and integrated approach could maximize the effectiveness of interventions and improve outcomes for individuals affected by these complex conditions.

5. CONCLUSIONS

Understanding the complex relationship between traumatic experiences and eating disorders is essential to the development and implementation of effective interventions in this area. A holistic and integrated approach is needed that addresses both the emotional trauma and the specific symptoms of eating disorders.

Early identification of trauma and implementation of healthy emotional regulation strategies can play a crucial role in the prevention and treatment of eating disorders. It is also important to provide adequate support and care for people with eating disorders, including access to specialist therapy and counseling services.

Future studies should further investigate the underlying mechanisms underlying the relationship between emotional trauma and eating disorders in order to develop tailored and effective interventions. Research should also explore innovative ways to treat and prevent eating disorders by integrating psychological, medical and social perspectives.

Raising awareness and educating the community about the impact of emotional trauma on mental and physical health is essential to promote

understanding and appropriate support for people affected by eating disorders and related trauma.

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**PREVENTING DISORDERED EATING BEHAVIOURS IN
ADOLESCENT GIRLS THROUGH ENHANCING SELF-CONCEPT:
A PILOT INTERVENTION STUDY**

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Abstract

Disordered eating attitudes and behaviours often emerge during adolescence and negatively impact health and well-being. Enhancing self-concept may help prevent the development of problematic eating patterns. This pilot study evaluated the effectiveness of a self-concept intervention program in reducing disordered eating risk in adolescent girls.

Twenty-four girls aged 14-16 years reporting body dissatisfaction were randomly assigned to either a 8-session self-concept intervention or waitlist control group. The intervention focused on developing self-esteem, self-efficacy and body appreciation.

Post-intervention, intervention participants reported significantly lower levels of disordered/emotional eating behaviour and an increase in overall self-concept for some of its components ($p < 0.05$).

Findings provide preliminary evidence that enhancing self-concept may help reduce risk factors for disordered eating in at-risk adolescent girls.

This pilot study contributes to developing preventive interventions targeting modifiable psychological factors influencing the emergence of problematic eating behaviours during adolescence.

Keywords: *eating disorder prevention, self-concept interventions, self-perception, eating behaviour, adolescent mental health*

1. INTRODUCTION

Disordered eating attitudes and behaviours often emerge during adolescence and have a negative impact on health and well-being (Smolak & Levine, 2015). Recent research shows that up to 57% of adolescent girls exhibit disordered eating behaviors, which are associated with significant negative consequences for physical and psychological development (Neumark-Sztainer et al., 2018).

Improving self-concept can help prevent the development of problematic eating patterns, as demonstrated in multiple longitudinal studies (O'Dea & Abraham, 2020). More specifically, research indicates that a positive self-concept acts as a protective factor against the internalization of unhealthy body ideals and restrictive eating behaviours (Voelker et al., 2015).

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This pilot study evaluated the efficacy of a self-concept-based intervention program in reducing the risk of disordered eating in adolescent girls, thus responding to the need identified in the literature for empirically validated preventive interventions (Hart et al., 2019).

2. OBJECTIVE AND HYPOTHESES

2.1. OBJECTIVE

The main objective of this study is to evaluate the effectiveness of a self-concept-based intervention program in reducing the risk of disordered/emotional eating and improving self-concept among adolescent girls aged 14-18 years.

2.2. HYPOTHESES

H1: Participation in the self-concept-based intervention program will lead to a significant reduction in scores on measures of disordered/emotional eating behaviours, compared to the control group.

H2: Adolescent girls who participate in the program will demonstrate a significant improvement in self-concept.

3. METHOD

Participants. The study participants were 24 adolescent girls aged 14-18 years. The participants were divided into two homogeneous groups: Experimental Group (EG - 12 participants) and Control Group (CG - 12 participants). To select the group participants, the criteria for belonging to the category of young people with problematic eating behaviour were used, but not exceeding the threshold score for eating disorders according to EAT-26, i.e., a score range between 16 and 20 points.

Design. The study used a longitudinal experimental design, test/retest with a control group. This approach allows for the immediate effectiveness of the intervention.

Intervention. The intervention program was initially designed in 12 separate modules, with the aim of comprehensively addressing aspects related to the improvement of problematic eating behaviours and their correlates. The duration of the program was 7 months, from February to October 2021, with a planned break in July and August. Two modules per month were scheduled. Each module had an average of 2-3 hours/day following the homeroom classes.

The program content included:

- Development of self-concept and self-knowledge
- Techniques for improving body image
- Strategies for managing social and media pressure
- Developing healthy eating habits
- Stress and emotion management techniques

Measures. The following instruments were used:

1. Eating Disorder Examination Questionnaire (EAT-26; Maloney et al., 2016) for assessing disordered eating behaviours;
2. Emotional Eater Questionnaire (EEQ; Garaulet et al., 2012);
3. The Self-Perception Profile for Adolescents (SPPA; Harter, 2012) for evaluating the self-concept of adolescent girls.

Procedure. After obtaining ethical approval and informed consent, participants completed the test batteries at two time points: pre-intervention and post-intervention. The control group received standard educational materials about nutrition and adolescent development.

Data Analysis. Data analysis included descriptive analyses for demographic characteristics and Mann-Whitney U tests for evaluating differences between groups at post-test.

4. RESULTS

4.1. TABLES AND FIGURES

Table 1 presents a comparison between the post-test results of the experimental group (EG) and the control group (CG) for the dimensions of dysfunctional eating behaviour measured by EAT-26 and EEQ. The data show statistically significant differences (all p-values < 0.001) between the two groups for all measured variables. The experimental group has significantly lower scores than the control group in all dimensions. Total eating attitudes (EAT-26) are lower in EG (12.75) compared to CG (18.92). The EAT-26 subscales (Diet, Preoccupation with food, Oral control) follow the same trend, with significantly lower scores in EG. We also recorded a significant decrease in emotional eating (EEQ) in EG (15.42) compared to CG (19.58).

These results suggest that the intervention applied to the experimental group had a significant and positive impact on eating behaviour, reducing problematic eating behaviours. The consistent differences between EG and CG indicate the effectiveness of the intervention in improving the eating behaviour of the participants in the experimental group.

Table 1. Comparison of post-test means and Mann-Whitney U test for Eating Behaviour Dimensions, EG and CG

Variable	Mean (DS)		Mann-Whitney U	
	GE	GC	U	p
EAT-26 (total)	12,75 (1,76)	18,92 (1,37)	0,5	0,000
EAT-26 - Diet	4,17 (0,83)	5,83 (0,38)	9	0,000
EAT-26 – Preoccupation	4,75 (1,21)	8,58 (0,66)	0,5	0,000
EAT-26 – Oral control	3,75 (0,45)	4,5 (0,52)	27	0,000
EEQ – Emotional eating	15,42 (1,44)	19,58 (0,79)	1	0,000

Table 2 presents a comparison between the post-test results of the experimental group (EG) and the control group (CG) for various dimensions of self-concept, as measured by the SPPA instrument. The data show statistically

significant differences between the two groups for several dimensions. Social competence ($p = 0.004$), athletic competence ($p = 0.004$), physical appearance ($p = 0.009$), and global self-concept ($p < 0.001$) are significantly higher in EG compared to CG. The largest difference is observed in global self-concept, where EG has a mean of 14.92 compared to 9.58 in CG. Academic competence, romantic appeal, and close friendships are also higher in EG, although the differences do not reach the threshold of statistical significance. Competence in professional activities is slightly lower in EG, but the difference is not significant. Behavioural conduct is similar between the two groups.

The results suggest that the intervention applied to the experimental group had a significant positive impact on several aspects of self-concept, especially on social competence, athletic competence, physical appearance, and, most notably, on global self-concept. The effect is stronger in domains related to physical and social self-image, which is in line with the likely objectives of the intervention.

Table 2 – Comparison of post-test means and Mann-Whitney U for Self-Concept Dimensions (SPPA, The Self-Perception Profile for Adolescents), EG and CG

Dimension	Mean (DS)		Mann-Whitney U	
	GE	GC	U	P
1. Academic competence	10,17 (2,48)	9 (2,76)	54	0,319
2. Social competence	11,25 (0,62)	8,42 (2,53)	23,5	0,004
3. Athletic competence	12,08 (2,87)	8,67 (1,92)	23,5	0,004
4. Physical appearance	9,75 (2,37)	7,92 (2,19)	42	0,009
5. Professional competence	11,25 (2,13)	12,75 (3,86)	59	0,478
6. Romantic appeal	10,75 (3,01)	8,58 (2,84)	41	0,078
7. Behavioural conduct	12,17 (2,79)	11,92 (2,39)	67,5	0,799
8. Close friendships	13 (3,56)	10,83 (3,76)	45	0,128
9. Global self-concept	14,92 (1,31)	9,58 (0,66)	0,15	0,000

5. CONCLUSIONS

The study results demonstrate the significant effectiveness of the intervention program in improving both eating behaviours and self-concept in adolescent girls. The data support the initial research hypotheses and align with previous studies highlighting the link between self-concept and eating behaviours (Voelker et al., 2015).

Regarding eating behaviour, the post-intervention comparative analysis reveals significant differences ($p < .001$) between the experimental and control groups for all evaluated dimensions. The significant reduction in EAT-26 scores in the experimental group ($M = 12.75$) compared to the control group ($M = 18.92$) indicates a substantial decrease in problematic eating behaviours, confirming the intervention's effectiveness.

Concerning self-concept, the program generated significant improvements in multiple dimensions assessed by SPPA, with effects on:

- Global self-concept ($p < .001$)
- Social competence ($p = .004$)
- Athletic competence ($p = .004$)
- Physical appearance ($p = .009$)

These results are consistent with previous research suggesting that interventions focused on improving self-concept can positively impact eating behaviours in adolescents (O'Dea & Abraham, 2000).

The magnitude of the observed effects, especially in the domain of global self-concept (EG: $M = 14.92$ vs. CG: $M = 9.58$), suggests that the intervention's benefits extend beyond behavioural changes, positively affecting fundamental psychological constructs (McCabe et al., 2017).

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THE IMPACT OF AGGRESSIVENESS ON COPING MECHANISMS

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Abstract

This research aims to explore the influence of aggressiveness on coping mechanisms and how different types of aggression relate to maladaptive coping mechanisms. It starts from the fact that aggression can influence the quality of individuals' relationships and personal satisfaction, as it may alter their reaction time and behavior. Therefore, we can say that aggression represents a differential factor in human conduct and a catalyst for deviance, from the perspective of social norms. The importance of coping mechanisms, in current research, is given by the similar natures, conceptually, of coping and aggression, both representing a direct action towards the problem. Managing aggression and identifying functional coping mechanisms, as well as dysfunctional ones, represent a subject of interest in light of the influence they have on individuals at a cognitive and behavioral level. This research will focus on the gradual and correlative identification of different types of aggression (physical aggression, fury/anger, hostility) as well as various coping mechanisms, such as cognitive coping and behavioral coping. Aggression and coping will be analyzed according to the gender of the respondents and correlated with each other. This paper encourages further research in the field of aggression psychology and coping mechanisms, underlining the importance of understanding the complexity of human behaviors and the factors that contribute to psychological resilience.

Keywords: *aggression, coping mechanisms, adaptive mechanisms, maladaptive mechanisms*

1. INTRODUCTION

The idea from which this research started was based on the curiosities and at the same time scientifically unsupported statements, which people have regarding the nature of aggression and its prevalence. Thus, the present research aims to identify the prevalence in terms of aggression and coping mechanisms and at the same time the correlative level between aggression and maladaptive coping mechanisms.

Aggression began to be studied over 50 years ago, when a team of researchers from Yale University published a book, which had as its subject the frustration-aggression hypothesis. Although this book was small, it had a huge impact on the social sciences, arousing a real interest in studying aggression (Berkowitz, 1987).

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Berkowitz (1987) defined aggression as any aggressive behavior (verbal or physical) that intends to harm someone.

Over the years, aggression has been a concept studied in several areas of psychology, being an important concept that has massive practical implications (Barlett & Anderson, 2012).

Aniței (2013) defined aggression as a behavior directed towards another individual to cause harm, an intentional behavior of the author. The concepts of impulsivity and aggression are important not only in psychiatric clinic, but also in everyday life.

Impulsivity is defined as the inability to resist an impulse, drive or temptation, this being harmful to oneself or others (Florin Tudose, Cătălin Tudose & Letiția Dobranici, 2011). Thus, impulsivity is at the basis of aggression. Florin Tudose, Cătălin Tudose and Letiția Dobranici (2011) consider that aggression is any form of behavior directed to harm or injure another person. Over the years, there have been several studies that have focused on researching human aggression and have reached conclusions that present the genetic heredity of aggression.

A meta-analysis of twin studies showed that 50% of the variables of human aggression are attributed to genes (Miles & Carey, 1997). Albert Bandura is the one who formulates the theory of social learning of aggression. According to this theory, aggressive behavior is learned. The model of aggressive behavior taken from the family will affect the good functioning of the individual.

Children who witness domestic violence have the same type of behavior in adulthood, in their own families (Foshee et al., 1999) According to the theories mentioned earlier, aggression is perceived as a direct action on a problem, which presents an active level and at the same time a similarity with the coping mechanisms that have exactly the same purpose, which gave this research the level of interest and similarity of the dimensions analyzed, in the present article.

Coping plays an important role in influencing the psychological and physical well-being of people, when they face negative or stressful life events (Aspinwall & Taylor, 1997).

Coping has been conceptualized, in general, as addressing a direct action to the problem or as actions and cognitions that influence the meaning of the problematic situation and people's emotional reactions to stress (Endler & Parker, 1990; Lazarus & Folkman, 1984). In the specialized literature, a distinction is made between two main functions of coping: cognitive coping, which represents thoughts about the problem or about oneself and behavioral coping, which represents behaviors about the problem or about oneself.

The importance of researching the correlations between various types of aggression and coping mechanisms is given by the similar nature, previously mentioned, of these two concepts, as well as through the prism of behavioral dimensions and the motor sphere in which they are externalized. Both behavioral dimensions, analyzed represent factors that affect the functionality of the individual, both at the intrapersonal and interpersonal level.

2. OBJECTIVE AND HYPOTHESES

2.1. OBJECTIVE

The objective of the current research is to discover the influence of aggression on maladaptive coping mechanisms and the correlative level of the two aforementioned dimensions. Our study focuses on three main aspects: identifying correlations between different forms of aggression and gender, exploring maladaptive coping mechanisms and how they differ between genders, with special attention given to the prevalence of specific behaviors of maladaptive coping, such as Indirect Action, Antisocial Action, and Aggressive Action. In addition, the study examines how various types of aggression, including Fury/Anger and Hostility, correlate with maladaptive coping mechanisms, providing a perspective on the interaction between aggressive traits and dysfunctional strategies for managing stress and emotional challenges.

2.2. HYPOTHESES

H1. We assume that the distribution of ranks of the level of physical aggression in men is different from the distribution of ranks of the level of physical aggression in women.

H2. We assume that there are statistically significant differences between men and women, in terms of maladaptive coping mechanisms (Indirect Action, Antisocial Action, Aggressive Action).

H3. We assume that there are statistically significant correlations between types of aggression (Fury/Anger, Hostility) and maladaptive coping mechanisms (Antisocial Action, Aggressive Action).

3. METHOD

3.1. GROUP OF PARTICIPANTS

The sample investigated consists of 124 respondents, with an average age of 30 years, 50% being men and 50% being women. In terms of the level of education, 58% of respondents have high school studies, and 42% have higher education. In the composition of the sample, from the point of view of marital status, there are 49% respondents who are not in a relationship and 51% respondents who are in a relationship.

3.2. INSTRUMENTS

1. AQ (aggression questionnaire) by Arnold H. Buss and Mark Perri, which aims to measure four dimensions of aggression. This instrument with 29 items measures four aspects of aggression: Physical Aggression, Verbal Aggression,

Fury/Anger, Hostility. At the same time, the questionnaire provides specialists in the field with a scorable measure of the total level of aggression of the respondents. The internal consistency of aq is very high. The cronbach's alpha coefficient had values of 85, 72, 83, and 77 for the pa, va, a, and h scales. The total score had an alpha value of 89.

2. SACS (Strategic Approach to Coping Scale) by Steven E. Hobfoll, Carla L. Dunahoo, Jeannine Monnier, Michael R. Hulsizer & Robert Johnson, which aims to evaluate the behavioral dimension of coping. This instrument with 59 items measures 9 coping mechanisms: Assertive Action, Social Relating, Seeking Social Support, Prudent Action, Instinctive Action, Avoidance, Indirect Action, Antisocial Action, Aggressive Action. The values of the cronbach's alpha coefficients vary in the non-clinical sample between 0.52 and 0.79.

3.3. THE PROCEDURE

The questionnaires were introduced on the Google Forms platform, and the respondents received an access link to complete them. The completion of the questionnaires was done online by the respondents, specifying that both the code of ethics and GDPR legislation were respected. All participants were instructed about the research and consented, being aware of the anonymity of their identity and the interest, along with the strictly statistical processing of the results.

3.4. RESEARCH DESIGN.

For the research design, the following variables were analyzed:

Dependent variables: Physical Aggression, Indirect Action, Antisocial Action, Aggressive Action, Fury/Anger, and Hostility.

Independent variables: gender

The research design follows the following model: $N_{1,2}: O_{1,2}$ Where N (1,2) represents the sample divided by gender; O (1,2) represents the responses to the two instruments used for measurements.

4. RESULTS

The analysis of the data obtained, after measuring different types of aggression (Physical Aggression, Fury/Anger, and Hostility) and coping mechanisms (Indirect Action, Antisocial Action, and Aggressive Action), highlighted the fact that male subjects present a degree of physical aggression 27.77% higher than female subjects. Regarding maladaptive coping mechanisms, male subjects show a greater predisposition, compared to female subjects, to use this type of mechanisms when they encounter a stressor. Regarding the correlative level of types of aggression (Antisocial Action and Aggressive Action) and maladaptive coping mechanisms (Fury/Anger and Hostility); aggression represents a facilitating factor for the appearance of maladaptive coping mechanisms, Fury/Anger represents a factor with a large effect on Antisocial Action, for a number of 124 respondents. The normality

analysis of the variables shows that most variables have a normal distribution, thus parametric and non-parametric statistical tests were used.

4.1. TABLES

H1. We assume that the distribution of ranks of the level of physical aggression in men is different from the distribution of ranks of the level of physical aggression in women.

Table 1 – Results of the Mann-Whitney test for H1

Ranks				
	Gender	N	Mean Rank	Sum of Ranks
Physical Aggression	Male	62	70,11	4347,00
	Female	62	54,89	3403,00
	Total	124		

Test Statistics^a	
	Physical Aggression
Mann-Whitney U	1450,000
Wilcoxon W	3403,000
Z	-2,363
Asymp. Sig. (2-tailed)	,018

a. Grouping Variable: Gen

The statistical results show that the average rank for men in Physical Aggression, denoted as m_1 , is 70.11, while the average rank for women, denoted as m_2 , is 54.89.

The statistical analysis of these values, where the p-value of 0.018 is less than the standard threshold of 0.05, indicates a significant difference between men and women in terms of the distribution of ranks of physical aggression. Moreover, considering that m_1 is smaller than m_2 , we can conclude that the alternative hypothesis, H1, is confirmed.

The conclusion is supported by the Z value, which does not fall within the standard range of +/- 1.96, having a value of -2.36. This leads us to reject the null hypothesis. In addition, the p-value of 0.018, being smaller than 0.05, reinforces the decision to reject H0.

Therefore, the alternative hypothesis H1 is retained, thus accepting the existence of a difference in the distribution of physical aggression between the two samples analyzed: Men and Women.

H2. We assume that there are statistically significant differences between men and women, in terms of maladaptive coping mechanisms (Indirect Action, Antisocial Action, Aggressive Action).

Table 2 - Results of the t-test for independent samples for H2

Group Statistics										
	Gen	N	Mean	Std. Deviation	Std. Error Mean					
Indirect Action	Male	62	12,76	4,245	,539					
	Female	62	11,13	4,123	,524					
Antisocial Action	Male	62	14,16	4,484	,569					
	Female	62	12,13	4,579	,582					
Aggressive Action	Male	62	15,11	4,149	,527					
	Female	62	13,31	3,505	,445					

Independent Samples Test										
		Levene's Test for Equality of Variances				t-test for Equality of Means				
		F	Sig.	t	df	Sig.(2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Indirect Action	Equal variances assumed	,180	,672	2,16	122	,032	1,629	,752	,141	3,117
	Equal variances not assumed			2,16	121,89	,032	1,629	,752	,141	3,117
Antisocial Action	Equal variances assumed	,011	,917	2,49	122	,014	2,032	,814	,421	3,643
	Equal variances not assumed			2,49	121,94	,014	2,032	,814	,421	3,643
Aggressive Action	Equal variances assumed	1,22	,271	2,61	122	,010	1,806	,690	,441	3,172
	Equal variances not assumed			2,61	118,67	,010	1,806	,690	,441	3,172

The interpretation of the results offers us a perspective on different coping mechanisms. Regarding Indirect Action, we observe that the average for men, denoted as m1, is 122.00, while the average for women, m2, is 121.90.

The p-value of 0.032, being below the threshold of 0.05, indicates a significant difference between genders in terms of this maladaptive mechanism. Also, m1 being smaller than m2, leads us to confirm hypothesis H2.

Analyzing Antisocial Action, we find that the average for men, m1, remains 122.00, while the average for women, m2, is 121.95. A p-value of 0.014, again below the limit of 0.05, suggests a significant difference between genders regarding this maladaptive coping mechanism. In addition, m1 being smaller than m2, supports the confirmation of hypothesis H2.

Regarding Aggressive Action, the average for men, m1, is 122.00 compared to the average for women, m2, of 118.68. With a p-value of 0.010, which is below the threshold of 0.05, a significant difference between genders in terms of this maladaptive mechanism is highlighted. In this case too, m1 being smaller than m2, allows us to affirm that H2 is confirmed.

The conclusion that emerges from these data is that men show a higher degree of maladaptive coping mechanisms compared to women.

H3. We assume that there are statistically significant correlations between types of aggression (Fury/Anger, Hostility) and maladaptive coping mechanisms (Antisocial Action, Aggressive Action).

Table 3 - Results of Pearson correlations for H3

		Correlations			
		Fury/Anger	Hostility	Antisocial Action	Aggressive Action
Fury/Anger	Pearson Correlation	1	,640	,486	,408
	Sig. (2-tailed)		,000	,000	,000
	N	124	124	124	124
Hostility	Pearson Correlation	,640	1	,507	,414
	Sig. (2-tailed)	,000		,000	,000
	N	124	124	124	124
Antisocial Action	Pearson Correlation	,486	,507	1	,787
	Sig. (2-tailed)	,000	,000		,000
	N	124	124	124	124
Aggressive Action	Pearson Correlation	,408	,414	,787	1
	Sig. (2-tailed)	,000	,000	,000	
	N	124	124	124	124

. Correlation is significant at the 0.01 level (2-tailed).

Table 4 - Descriptive analysis for H3 variables

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Fury/Anger	124	9	32	19,32	5,596
Hostility	124	8	39	20,31	7,321
Antisocial Action	124	5	25	13,15	4,627
Aggressive Action	124	8	25	14,21	3,931
Valid N (listwise)	124				

In our study, we examined the relationship between Fury/Anger and Antisocial Action, where we observed a strong positive correlation, with a coefficient $r=0.640$, indicating a significant link between the two variables. This association is supported by a p-value of 0.001, which is well below the standard threshold of 0.05, thus confirming the statistical significance of the correlation. Moreover, the determination coefficient $d\text{Cohen}=1.20$ suggests that there is a large effect size, in support of the previous statement comes the p-value which is well below the significance threshold, thus demonstrating that the variance of Fury/Anger has both a practical and statistical effect on Antisocial Action.

A similar analysis of the relationship between Fury/Anger and Aggressive Action, for 124 respondents, revealed a good positive correlation, with a coefficient $r=0.408$. This indicates a moderate relationship between the two variables, and the p-value of 0.001 confirms the statistical significance of this correlation. The determination coefficient $d\text{ Cohen}=1.06$ presents a large effect size, in support of the previous statement comes the p-value which is well below the significance threshold, thus demonstrating that the variance of Fury/Anger has both a practical and statistical effect on Aggressive Action.

In addition, we explored the link between Hostility and Antisocial Action, where we discovered a good positive correlation, with a coefficient $r=0.507$, for 124 respondents. This reflects a moderate to strong relationship, and the p-value of 0.001 underlines the statistical significance of the finding. According to the determination coefficient $d\text{ Cohen}=1.17$, Hostility presents a large effect size when correlated with Antisocial Action, the p-value which is well below the significance threshold, thus demonstrating that the variance of Hostility has both a practical and statistical effect on Antisocial Action.

Finally, examining the relationship between Hostility and Aggressive Action, we identified a good positive correlation, with a coefficient $r=0.414$, for the same number of respondents. The p-value of 0.001 indicates a statistical significance, and the determination coefficient $d\text{ Cohen}=1.04$ suggests that there is a large effect size, in support of the previous statement comes the p-value which is well below the significance threshold, thus demonstrating that the variance of Hostility has both a practical and statistical effect on Aggressive Action. The results indicate a statistically and practically significant association between types of aggression and maladaptive coping mechanisms.

The strongest correlation was observed between Fury/Anger and Antisocial Action. In all cases, the very small p-values of 0.001 support the hypothesis that there is a significant relationship between variables. These findings suggest that Fury/Anger and Hostility can be important predictors of maladaptive behaviors, such as Antisocial and Aggressive Actions. However, there are also other factors that contribute to these behaviors, given that $d\text{ Cohen}$ is over 1 in all cases, we have large effect sizes that provide certainty of both statistical and practical effects. However, there is a need to explore other variables that might influence maladaptive coping mechanisms.

5. CONCLUSIONS

The conclusion of our research highlights significant differences between genders in terms of the manifestation of aggression and the use of maladaptive coping mechanisms. The data analyzed suggest that men tend to show a degree of physical aggression 27.77% higher than women and are more prone to resort to maladaptive coping mechanisms in stressful situations.

Given that Cohen's d is over 1 in all cases, we have large effect sizes that provide certainty of both statistical and practical effects. This underlines the role of

aggression as a facilitating factor for the emergence of maladaptive coping mechanisms.

The statistical analysis confirmed the significance of these correlations, with p-values significantly below the standard threshold of 0.05, and revealed a significant difference between men and women in terms of the distribution of ranks of physical aggression. The Z value of -2.36, which does not fall within the standard range of +/- 1.96, leads us to reject the null hypothesis and accept the alternative hypothesis H1, which asserts the existence of a difference between the two samples analyzed.

Also, we observed that men have a greater tendency to adopt Indirect Action and Antisocial Action as coping mechanisms, compared to women. These findings are supported by the statistical results that show significant differences between genders, with men having lower rank averages than women for these behaviors. In conclusion, our study contributes to the existing literature by highlighting gender differences in the manifestation of aggression and the use of maladaptive coping mechanisms.

I would like to mention that recent scientific studies provide significant insights into the impact of aggression and coping mechanisms. One study examined gender differences in coping strategies and their relationship with anxiety during the COVID-19 lockdown. It was found that women experienced higher levels of anxiety and were more likely to use coping strategies such as acceptance, self-distraction, and emotional support compared to men. Men reported higher levels of anxiety when using active coping, while women reported lower levels of anxiety with high acceptance and positive reframing (MDPI, 2023).

Another study focused on the relationship between emotional processes, cognitive regulation strategies, and various forms of aggression (physical, verbal, relational). It was found that anger and hostility are closely related to all forms of aggression, and higher use of maladaptive emotional regulation strategies correlated with higher levels of trait aggression (SpringerLink, 2024).

The results underline the importance of considering gender differences in therapeutic approaches and in prevention and intervention programs for maladaptive behaviors. Also, they pave the way for future research to explore other variables that could influence these behaviors, providing a deeper understanding of the dynamics between aggression and coping mechanisms.

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EMOTIONAL RESILIENCE AND INSTABILITY IN RELATION TO BURNOUT SYNDROME ONSET

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Abstract

This research aims to explore resilience and emotional instability in relation to the onset of burnout syndrome and the relevance of gender in this context. It belongs to an era of speed, where daily life has become increasingly demanding, and professional performance is a top priority for many of us. Given the daily interaction of the majority of the active population with stressors, the impact they have on people's mood and functionality, regardless of gender, is real and significant. Thus, there is a general predisposition of the active population to develop burnout syndrome under certain conditions. This predisposition can be amplified or diminished by causal relationships related to the resilience of each individual in the face of severe stress encountered in occupational contexts or crisis situations (e.g., tight deadlines). Further research has shown that burnout can affect anyone, including individuals at the beginning of their careers or those in professions that involve working with people (e.g., social services, education, medicine, psychology). Managing or identifying the cause of Burnout can be a major concern for both female and male populations, as stress can impact quality of life, professional performance, and/or academic achievement. This research will focus on a correlational approach based on gender perspective regarding resilience and emotional instability in relation to the onset of burnout syndrome. Considering the gender perspective, this study aims to identify risk factors related to burnout activation among women and men; it will investigate whether a certain level of emotional instability leads to earlier emotional, physical, and mental exhaustion; and it will evaluate the correlations of specific subscales related to resilience, emotional instability, and burnout level.

Keywords: *burnout, emotional instability, resilience*

1. INTRODUCTION

The Burnout Syndrome is commonly encountered in both females and males. There may be a gender-related prevalence, influenced by each individual's ability to manage acute stress in correspondence with intrinsic feelings and daily experiences.

In this modern, contemporary era, with multiple issues arising almost every day, there is a recurring phenomenon that predominantly affects active individuals, particularly those working in corporations, aged between 30 and 50 years.

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Specifically, this nervous system impairment known as Burnout Syndrome has emerged.

As we face daily interactions with stressors, the impact on mood and functionality is significant. Burnout does not necessarily correlate with overtime work but rather with chronic stress accumulation and dissatisfaction with daily activities. Employers are advised to invest in prevention to maximize their employees' potential (Ciurea, 2022).

All this accumulation of tasks found in all current fields and professions can lead to the exhaustion of the emotional and physical functioning capacity of the nervous system. Individuals who tend to experience severe stress episodes can develop the onset of burnout syndrome, especially when cognitive demands increase and time pressure exists. Burnout Syndrome can be defined as a feeling of exhaustion that arises from increased requirements or performance, which can lead individuals to develop negative attitudes and pessimistic feelings regarding self-evaluation or feedback from others.

Subjectively, this phenomenon can be perceived as 'an engine that has been running at high speed for a long time.' Additionally, it is known that burnout is associated with physical and psychological disorders, lower performance, task abandonment, and negative self-perceptions. The term 'burnout' has been known since the 1970s when it was first used by (Bradley, 1969). It was later adopted by American psychologist Herbert (Freudenberger, 1974 & Maslach, 1976), who scientifically substantiated it. Herbert Freudenberger defined burnout as a state of chronic fatigue, low frustration tolerance due to inner conflict, lifestyle, or relationships failing to produce expected rewards, leading to exhaustion and reduced capacity for engagement and achievement of personal or professional goals. Subsequent research has shown that burnout can affect anyone, including individuals at the beginning of their careers. Burnout syndrome can be described as an association of emotional exhaustion, depersonalization (or cynicism), and reduced personal accomplishment, which may occur among individuals in professions involving working with people (e.g., social services, education, medicine, psychology). This definition is found in the most recent edition of the International Classification of Diseases (ICD-11, 2018), which describes burnout (code QD85) as a "phenomenon in an occupational context".

Risk factors for burnout can be both individual and social. Individual factors include perfectionism, the 'good Samaritan' syndrome, intentionally or unintentionally being in a role of permanent overinvolvement, a rich history of conflicts leading to exhaustion, personality disorders, vulnerability to failure, substance abuse, and personal or family history (e.g., separation anxiety or cultivating a sense of duty at any cost). All these factors may relate to an individual's ability to manage emotions and the level of resilience developed over time.

Socio-cultural factors that increase the predisposition to burnout include stressful and insecure work environments (e.g., success-oriented without support or validation), conflicts between perceived professional effort and social recognition, financial difficulties, and discrepancies between career demands and family expectations. The brain plays a key role in stress response, determining what is

threatening and influencing physiological and behavioral reactions. Chronic stress can lead to wear and tear on the body (allostatic load), but stress hormones also promote adaptation (allostasis). The hippocampus, amygdala, and prefrontal cortex undergo structural changes induced by stress, affecting behavior and physiology. As an adjunct to pharmaceutical therapy, social and behavioral interventions, such as regular physical activity and social support, reduce the burden of chronic stress, allowing individuals to maintain brain and body health with increased resilience due to intrinsic and extrinsic resources.

In the context of burnout syndrome, emotional instability can play a significant role, influencing an individual's susceptibility to this condition. Burnout can be characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. It is frequently encountered in professions with high demands or demanding work schedules, which can contribute to emotional instability under severe stress. Emotional instability refers to frequent and intense variability in emotions, including excessive reactions to stress and difficulties in managing negative emotions.

Research indicates that women, despite often being more emotionally resilient due to well-developed coping mechanisms, are also more exposed to emotional instability due to social expectations and multiple roles (e.g., career and family responsibilities). On the other hand, men may be less inclined to express and manage their emotions, leading to emotional tension accumulation and, ultimately, burnout. Thus, the relationship between emotional instability and burnout is influenced by gender differences in stress management.

Individual capacity to adapt and sharpen resilience in the face of severe stress significantly affects how one responds to challenges and stressors. Resilience involves traits and behaviors such as optimism, problem-solving skills, and the ability to seek and utilize social support. Resilient individuals have a positive outlook on life, believe in their ability to overcome obstacles, and demonstrate flexibility in adapting to changes and coping with various stressful situations. Social support plays a crucial role in stress management, and strong relationships where individuals feel supported are vital resources for coping with stress. Additionally, self-control positively impacts individuals' lives, allowing them to manage emotions and behaviors in stressful situations. Genetic factors, life experiences (both positive and negative), education, and the environment all contribute to resilience development or inhibition. When the environment is supportive and provides exposure to opportunities, coping mechanisms can develop, leading to more effective emotional and stress management and reducing the predisposition to burnout.

2. OBJECTIVES AND HYPOTHESES

2.1. OBJECTIVES

The current research aims to identify correlations between resilience and emotional instability in relation to the onset of Burnout syndrome. Additionally, we will

explore whether there is a correlation between individuals' educational levels and Burnout syndrome.

2.2 HYPOTHESES

H1. We assume that there are significantly statistical differences between respondents with secondary education and respondents with higher education in terms of the level of burnout.

H2. We assume that there are correlations, statistically significant, between the level of burnout and the facets of affective maturity (Psycho-affective comfort - psycho-affective discomfort, Hedonic (stenic) tone, Emotional balance - emotional lability, Adequate socio-affective relationship capacity-suspicion).

H3. We assume that there are correlations, statistically significant, between the level of burnout and the facet of resilience (Employment).

3. METHOD

3.1. GROUP OF PARTICIPANS

The surveyed sample consists of 100 respondents, with an average age of 40 years. Fifty percent are male, and fifty percent are female. Regarding educational levels, 30% of respondents have completed secondary education, while 69% have higher education. In terms of job composition, 44% of respondents reported having a dynamic work environment, while 56% indicated a static work environment.

3.2. INSTRUMENTS

1. C(MA) Psychodiagnosis of Affectivity and Affective Maturation by Florian Ștefănescu Goangă and Gheorghe Zapan aims to diagnose affective maturation, which can also serve as an indication of individuals' personality. This psychodiagnosis primarily focuses on diagnosing forms of affectivity-related disorders such as depression and imbalance. However, it explores affectivity from a less "positive" perspective. The instrument consists of 75 items and measures ten subscales related to affective maturation, including emotional balance-emotional lability, socio-affective adaptability-suspicion, moderate emotional reactivity-irritability, agitation, tension, self-control-impulsivity, resistance to emotional situations-inability to withstand stress, emotions, frustration, adequate socio-affective relational capacity, affective participation-autocontrol of affective behavior, affective internalization capacity (self-control of affective behavior), hedonic tone (stenic), and psycho-affective comfort-discomfort1.

2. Burnout Evaluation Questionnaire (Professional Exhaustion): This professional test, developed by Freudenberger in 1974, aims to identify physical and psychological exhaustion caused by excessive demands on an individual's energy, resources, and forces. The questionnaire consists of 25 items and measures three

subscales: emotional exhaustion, depersonalization, and reduced personal accomplishments².

3. DRS-15 Scale: Derived from the longer DRS-30 version, the DRS-15 scale assesses individual robustness, seen as a personality disposition related to resilience against stress. It manifests at cognitive, emotional, and behavioral levels. The instrument comprises 15 items and measures three subscales: engagement, control, and challenge³.

3.3. THE PROCEDURE

The questionnaires were introduced in the Google Forms platform, and respondents received an access link to complete them. The questionnaires were filled out online by the respondents, ensuring compliance with both the code of ethics and GDPR legislation. All participants were informed about the research and provided consent, being aware of the anonymity of their identity and the strictly statistical processing of the results.

3.4. RESEARCH DESIGN

For the research design, the following variables were analyzed: Dependent variables: Psycho-affective comfort, psycho-affective discomfort, Hedonic (stenic) tone, Emotional balance, Emotional lability, Socio-affective adaptation capacity, suspicion; and Employment. Independent variables: level of education. The design of the research follows the following model: N_{1,2}:O_{1,2,3}. Where N_(1,2) is the sample divided by gender; O_(1,2,3)- represents the answers to the three instruments used for measurements.

4. RESULTS

The results indicated a strong positive correlation between Burnout and Psycho-affective Comfort, with a correlation coefficient of $r=0.590$. This suggests that higher levels of Psycho-affective Comfort are associated with reduced Burnout symptoms. The statistical significance of this relationship is supported by a p-value of 0.001. The coefficient of determination, $r^2=0.348$, informs us that over one-third of Burnout variance can be explained by Psycho-affective Comfort variance.

In contrast, we observed a strong negative correlation between Burnout and Hedonic Tone (Stenic), with a coefficient of $r=-0.584$. This indicates that a greater tendency toward social behavior is associated with lower Burnout levels. Regarding the relationship between Burnout and Emotional Balance, a coefficient of $r=-0.495$ suggests an inverse proportional relationship between the two constructs. Thus, low emotional balance (cyclothymia) facilitates Burnout onset, while high emotional balance (emotional stability) acts as a protective factor against Burnout. These findings are supported by the value of $r=-0.584$, confirming the inverse relationship.

Regarding Socio-affective Adaptability-Suspicion, we found a good negative correlation with a coefficient of $r=-0.439$. This indicates that adverse social behaviors are linked to increased Burnout symptoms. The coefficient of

determination, $r^2=0.192$, suggests that almost one-fifth of Burnout variance is explained by Socio-affective Adaptability-Suspicion variance.

Our study’s results underscore a significant inverse relationship between Engagement and Burnout. Discovering that higher levels of Engagement are associated with lower Burnout is essential for both organizations and employees. Strategies promoting employee engagement—such as recognizing achievements, providing professional development opportunities, and improving working conditions—can effectively reduce Burnout.

4.1. TABLES

H1. We assume that there are significantly statistical differences between respondents with secondary education and respondents with higher education in terms of the level of burnout.

Table 1 – Independent Sample Test Results for H1

Group Statistics										
		N	Mean	Std. Deviation	Std. Error Mean					
Burnout	Secondary education	31	54,20	8,499	1,552					
	Superior	69	50,41	8,170	,984					
Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means		Std. Error95% Confidence Interval of Difference the Difference				
		F	Sig.	t	df	Sig. (2-tailed)	Difference	e	Lower	Upper
Burnout	Equal variances assumed	,051	,822	2,098	97	,039	3,794	1,808	,205	7,384
	Equal variances not assumed			2,065	53,312	,044	3,794	1,837	,110	7,479

Analyzing the obtained results, we observe that the average burnout index for individuals with medium education (denoted as m1) is 54.20, while the average for the comparison group (denoted as m2) is 50.41. This difference is underscored by a p-value of 0.039, which falls below the standard threshold of 0.05. This suggests that Hypothesis H1, which posits that individuals with medium education exhibit a higher prevalence of burnout compared to the comparison group, is validated.

Furthermore, the difference between m1 and m2 averages is not only statistically significant but also relevant in terms of its impact on the studied population. The p-value, being less than 0.05, confirms a significant difference between education level and burnout prevalence.

Therefore, we can conclude that medium education is associated with a higher risk of burnout, which could have important implications for developing intervention and prevention strategies in this field.

H2. We assume that there are correlations, statistically significant, between the level of burnout and the facets of affective maturity (Psycho-affective comfort - psycho-affective discomfort, Hedonic (stenic) tone, Emotional balance - emotional lability, Adequate socio-affective relationship capacity-suspicion).

Table 2 – Spearman's Test Results for H2

		Correlations					
Spearman's rho	Burnout	Psycho-affective comfort	Hedonic tone	Emotional balance	Socio-affective ability to adapt		
	Correlation	1,000	,590**	-,548**	-,495**	-,439**	
	Coefficient						
	Sig. (2-tailed)	.	,000	,000	,000	,000	
	N	100	100	100	100	100	
	Psych o-affective comfort	Correlation	,590**	1,000	-,765**	-,655**	-,683**
		Coefficient					
		Sig. (2-tailed)	,000	.	,000	,000	,000
		N	100	100	100	100	100
	Hedonic tone	Correlation	-,548**	-,765**	1,000	,647**	,659**
		Coefficient					
		Sig. (2-tailed)	,000	,000	.	,000	,000
		N	100	100	100	100	100
	Emotional balance	Correlation	-,495**	-,655**	,647**	1,000	,636**
		Coefficient					
		Sig. (2-tailed)	,000	,000	,000	.	,000
		N	100	100	100	100	100
	Socio-affective ability to adapt	Correlation	-,439**	-,683**	,659**	,636**	1,000
		Coefficient					
		Sig. (2-tailed)	,000	,000	,000	,000	.
		N	100	100	100	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

In our study, which included 100 participants, we investigated the relationship between Burnout and Psycho-affective Comfort-Discomfort. The results indicated a strong positive correlation, with a coefficient of $r=0.590$, suggesting a robust association between the two variables. This association is confirmed by a p-value of 0.001, significantly below the standard threshold of 0.05, indicating statistical significance. Additionally, approximately 34.8% of Burnout variance can be explained by Psycho-affective Comfort-Discomfort variance, as shown by the coefficient of determination, $r^2=0.348$.

We also analyzed the link between Burnout and Hedonic Tone (Stenic). Here, we found a strong negative correlation, with a coefficient of $r=-0.584$, indicating a similarly robust relationship. The p-value of 0.001 underscores the statistical significance of this correlation. The coefficient of determination, $r^2=0.341$, informs us that 34.1% of Burnout variance is associated with Hedonic Tone (Stenic) variance.

Regarding the relationship between Burnout and Emotional Balance, we observed a good negative correlation, with a coefficient of $r=-0.495$. This suggests a strong inverse relationship between the two constructs. The p-value of 0.001 further validates the statistical significance, falling below 0.05. Approximately 24.5% of Burnout variance can be explained by Emotional Balance variance, according to the coefficient of determination, $r^2=0.245$.

Finally, examining the connection between Burnout and Socio-affective Adaptability-Suspicion, we found a good negative correlation, with a coefficient of $r=-0.439$. This indicates that adverse social behaviors are linked to increased Burnout symptoms. The coefficient of determination, $r^2=0.192$, reveals that almost one-fifth of Burnout variance is explained by Socio-affective Adaptability-Suspicion variance.

Our study delved deeply into the relationships between Burnout and various psychological behaviors and traits, providing valuable insights into the dynamics between professional stress and coping mechanisms. The analysis, based on a sample of 100 participants, revealed significant correlations between Burnout and Psycho-affective Comfort-Discomfort, Hedonic Tone (Stenic), Emotional Balance-Emotional Lability, and Socio-affective Adaptability-Suspicion.

These findings highlight the importance of understanding these factors in addressing Burnout and developing effective intervention and prevention strategies.

The conclusion of our study underscores the importance of positive behaviors and proper management of emotional effort in preventing and reducing Burnout. The results suggest that promoting positive social behaviors and developing effective coping strategies can significantly impact the fight against professional stress. These findings can guide the development of intervention and support programs for professionals, contributing to improved mental health and workplace well-being.

H3. We assume that there are correlations, statistically significant, between the level of burnout and the facet of resilience (Employment).

Table 3 – Spearman's Test Results for H3

Correlations				
Spearman's rho	Burnout	Correlation Coefficient	Burnout	Employment
		Sig. (2-tailed)	1,000	-,657**
		N	.	,000
			100	100
	Employment	Correlation Coefficient	-,657**	1,000
		Sig. (2-tailed)	,000	.
		N	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

Our analysis of the relationship between Burnout and Engagement, involving 100 participants, revealed significant results. The p-value of 0.001, significantly below the standard threshold of 0.05, indicates a statistically significant correlation between the two variables. The Pearson correlation coefficient, $r=-0.657$, suggests a strong negative correlation, meaning that as Engagement levels increase, Burnout tends to decrease, and vice versa. This relationship is further supported by the

coefficient of determination, $r^2=0.431$, which informs us that approximately 43.1% of Burnout variance can be explained by Engagement variance.

Our study's findings underscore a meaningful inverse relationship between Engagement and Burnout. Discovering that higher levels of Engagement are associated with lower Burnout is essential for both organizations and employees. It suggests that strategies promoting employee engagement—such as recognizing achievements, providing professional development opportunities, and improving working conditions—can effectively reduce Burnout. Investing in employee well-being not only enhances job satisfaction and performance but also positively impacts mental health.

5. CONCLUSION

The conclusions of our research highlight the importance of resilience and affective maturation for better stress management in the occupational context, thus avoiding Burnout syndrome.

The analyzed data suggest that a higher level of Psycho-affective Comfort is associated with reduced Burnout symptoms. Furthermore, a greater tendency toward social behavior is linked to lower Burnout levels. This pattern is consistent in the relationship between Burnout and Emotional Balance, where emotional instability contributes to increased Burnout symptoms.

Another significant finding relates to the connection between Burnout and Socio-affective Adaptability-Suspicion. A high level of suspicion is associated with increased Burnout symptoms, and approximately one-fifth of Burnout variance can be explained by Socio-affective Adaptability-Suspicion variance.

Regarding the relationship between Burnout and Engagement, our results suggest that as Engagement levels increase, Burnout tends to decrease, and vice versa. This inverse relationship is essential for both organizations and employees. Strategies promoting employee engagement—such as recognizing achievements, providing professional development opportunities, and improving working conditions—can effectively reduce Burnout.

I also want to mention that recent studies on occupational burnout highlight the importance of resilience and other psycho-affective factors in managing stress and reducing burnout symptoms. For example, a study conducted on healthcare workers during the COVID-19 pandemic showed that a higher level of resilience is associated with lower levels of emotional exhaustion and a greater sense of personal accomplishment. The study emphasizes that developing resilience skills can significantly reduce the risk of burnout in high-stress situations (SpringerLink, 2021). Additionally, another longitudinal study over the course of a year examined the evolution of burnout and other psychological stress factors in healthcare workers. The results indicated that social support and self-compassion played crucial roles in maintaining mental health and reducing burnout. This study highlighted the importance of organizational support and self-compassion as protective factors against burnout (BioMed Central, 2022)."

In conclusion, our study contributes valuable insights to the existing literature by emphasizing the significance of positive behaviors, proper management of emotional effort, and individual resilience in preventing and reducing Burnout. These findings can guide the development of intervention and support programs for professionals, ultimately enhancing mental health and workplace well-being.

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**COPING STRATEGIES IN THE DEVELOPMENT OF
RESILIENCE IN CHILDREN WITH DIABETES MELLITUS**

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Abstract

The reactions of children to stress are influenced by several factors, including parental style, the level of emotional intelligence, but especially by the cognitive, emotional or behavioral strategies they have at their disposal. For children with diabetes, the overlap of medical stress with the normal challenges of development can create additional tensions, such as managing health-related fears, accepting differences from peers, or integrating treatment routines into daily life. This research aimed to identify trends in coping with stress and how diabetes affects the approach to daily and emotional challenges, as well as its impact on self-perception and reactions to perceived threats. The comparative study aimed to observe differences in stress coping between two groups of children: 100 children with diabetes and 100 children without diabetes. Often, children with diabetes have not developed many coping resources, but through dedicated programs, they can learn and develop them. The goal is to implement a multidimensional therapeutic intervention program, helping children not only develop cognitive problem-solving skills, but also cultivate emotional regulation abilities and constructive ways to express emotions and manage behavioral challenges.

Keywords: *children with diabetes, coping, development, resilience, emotional regulation*

1. INTRODUCTION

Negative thoughts in children related to perceived threats, such as physical threats, social threats, personal failure, or hostility, play a crucial role in managing chronic stress and Type 1 Diabetes (T1D). Studies suggest that these thoughts can significantly impact how children develop their coping mechanisms and resilience. Children with Type 1 Diabetes (T1D) are often exposed to negative thoughts related to physical risks, such as hypoglycemia, long-term complications, and the

ongoing stress of managing blood glucose levels correctly. These thoughts can increase anxiety and fear of non-compliance with medical regimens, thereby affecting their quality of life. A study by (Helgeson și colab., 2009) demonstrated that adolescents with diabetes who experience high levels of health-related anxiety are at greater risk for depression and difficulties in disease management. Regarding social threats, differences from peers, stigmatization, and fear of social exclusion can lead to negative thoughts about acceptance in social groups. The study by (Hains și colab., 2006) emphasizes that social anxiety and the fear of not being accepted in communities are common among children with Type 1 Diabetes (T1D), making them more vulnerable to emotional and behavioral issues. The feeling of not managing diabetes well can trigger thoughts of personal failure and self-blame. According to a study by (Whittemore și colab., 2010), the perception of failure in disease management can negatively impact children's self-esteem, reducing their motivation to adhere to treatment plans and exacerbating negative emotional states. Children may experience frustration and anger towards diabetes, viewing the condition as a burden that limits their lives. (Hilliard și colab., 2013) showed that hostility and frustration related to the limitations imposed by diabetes can lead to dysfunctional coping mechanisms, such as avoidance or social isolation.

The impact of coping strategies on negative thoughts

Emotional regulation is essential for managing anxiety related to physical and social threats. According to research by (Skinner & Zimmer-Gembeck, 2007), effective emotional regulation strategies help children reduce anxiety and maintain optimal diabetes control. *Cognitive restructuring* plays a crucial role in modifying negative thoughts related to personal failure and hostility. The study by (Grey și colab., 2009) emphasizes that cognitive-behavioral interventions can enhance children's ability to reinterpret negative thoughts, thereby reducing anxiety and depression. *Social withdrawal* and *wishful thinking* are associated with an increased perception of physical threat and hostility. (Hains și colab., 2006) demonstrated that these maladaptive strategies can exacerbate social isolation and frustration. *Social support* is one of the strongest protective factors. According to (Leonard și colab., 2002), children who receive support from family and peers have lower levels of negative thoughts and are better able to adapt to their condition.

1. OBJECTIVE AND HYPOTHESES

The objective of the research is grounded in the need to identify the coping mechanisms that children with Type 1 Diabetes (T1D) possess and predominantly use, in order to implement a dedicated psychotherapeutic program aimed at helping them develop new adaptive responses to stress. This approach takes into account the chronic nature of the disease, which requires more diverse and effective responses to the lifestyle associated with diabetes. The goal is to support children in strengthening their capacity to respond to daily stressors as well as diabetes-specific stress, promoting flexible and varied strategies that provide a sense of control and autonomy. The research considers the impact of perceived threats, such as negative thoughts related to physical threats (hypoglycemia, complications),

social threats (differences from peers), personal failure (managing diabetes), and hostility (frustration related to the limitations imposed by the disease), and how these threats can be addressed through a psychotherapeutic program tailored to their needs.

2. METHOD

The instruments used in the research to achieve the proposed objectives and goals were as follows: 1. *KIDCOPE* – a brief screening tool designed to assess the use and effectiveness of coping strategies in children and adolescents aged 7 to 18 years (Spirito și colab., 1988). It evaluates 11 coping strategies through self-reporting: distraction, prayer, self-blame, social withdrawal, cognitive restructuring, blaming others, problem-solving, emotional regulation, wishful thinking, social support, and resignation. 2. *Children and Adolescents' Automatic Thoughts Scale (CATS)* – developed by (Schniering & Rapee, 2002), this self-report questionnaire consists of 40 items that measure negative thoughts related to perceived threats, specifically physical threat, social threat, personal failure, and hostility.

Both tests were administered under the same conditions to all children in the research groups, and the obtained results were compared and analyzed. This approach allowed for a detailed understanding of the coping mechanisms utilized by children with Type 1 Diabetes (T1D) and highlighted the differences in perception and management of stress between the two groups. The findings provide a solid foundation for the development of a multidimensional therapeutic program tailored to the specific psychosocial needs of children with diabetes, aiming to enhance their adaptive strategies and improve resilience.

3. RESULTS

The analysis of data and statistical interpretation of research results are essential steps in evaluating the effectiveness of psychotherapeutic interventions, particularly in the context of children with type 1 diabetes (T1D). The purpose of this section is to present the obtained results and interpret their significance within the research framework. The use of appropriate statistical analysis enabled us to identify significant relationships between variables, determine major predictors of coping, and understand the impact of these strategies on their emotional and psychological well-being (Table 1). Additionally, the interpretation of the results was conducted in the context of existing literature, providing an empirical basis for understanding the complexities of coping among children with T1D. These findings also underscore the importance of social support and adaptive strategies in managing the challenges associated with this chronic illness.

Thus, the data analysis and interpretation of results will contribute to formulating recommendations for psychotherapeutic interventions aimed at fostering resilience and effective coping skills among children with diabetes.

Table 1. Descriptive analysis of coping mechanisms

			Level of manifestation	
			Low manifestation	Significant manifestation
V1	Distraction	n	112	88
		%	56.0	44.0
V2	Prayer	n	172	28
		%	86.0	14.0
V3	Self-Blame	n	134	66
		%	67.0	33.0
V4	Social withdrawal	n	126	74
		%	63.0	37.0
V5	Social support	n	125	75
		%	62.5	37.5
V6	Cognitive Restructuring	n	154	46
		%	77.0	23.0
V7	Emotional Regulation	n	183	17
		%	91.5	8.5
V8	Whishful thinking	n	147	53
		%	73.5	26.5
V9	Blaming Others	n	121	79
		%	60.5	39.5
V10	Resignation	n	148	52
		%	74.0	26.0
V11	Problem Solving	N	122	78
		%	61.0	39.0

Low frequencies (<50%) were observed for the manifestation of the 11 coping strategies, with the lowest frequency being noted for *Emotional Regulation* (8.5%). High usage rates were observed for *Distraction* (44%), *Blaming Others* (39.5%), and *Problem-Solving* (39%), followed by *Social Support* (37.5%) and *Social Withdrawal* (37%), *Self-Blame* (33%), and *Resignation* (26%). The analysis of coping methods among children reveals a varied use of stress management and emotional difficulty strategies (Compas și colab., 2001).

The low frequency of *Emotional Regulation* (8.5%) indicates that children face significant challenges in managing and regulating their emotions adaptively. This suggests a critical need for interventions aimed at developing these essential skills for emotional health and stress management.

Distraction (44%) is the most frequently used strategy, involving the diversion of attention from the current problem or stressor to reduce its impact. Distraction may include engaging in enjoyable activities or commitments that shift focus away from the source of stress. *Blaming Others* involves attributing responsibility for encountered problems to others, which can temporarily alleviate feelings of pressure. *Problem-Solving* is the most adaptive and effective strategy for managing stress, based on the search for solutions, and is used by 39% of the children. *Social Support* relies on seeking and utilizing assistance from others to cope with difficulties, including discussions with friends, family, or trusted individuals.

Social Withdrawal involves retreating from social interactions, which may be used to avoid stressful situations but can lead to isolation and loneliness. *Self-*

Blame entails taking full responsibility for encountered problems, which may result in decreased self-esteem and a sense of helplessness. *Resignation* (26%) involves passive acceptance of the situation and a lack of action to change circumstances, which may indicate a lack of motivation or feelings of frustration. Other mechanisms utilized by children included *Religious Coping* (14%), *Cognitive Restructuring* (23%), and *Wishful Thinking* (26.5%), as illustrated in the following graph (Figure 1).

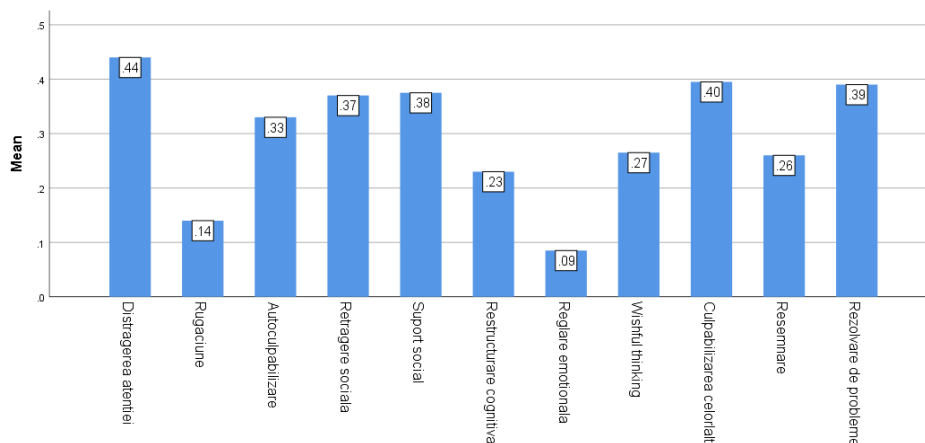


Figure 1. The mean scores for different coping strategies

To test the differences determined by a factor model composed of sex, age, and the presence of Type 1 Diabetes (T1D) in predicting the levels of ordinal variables, binary logistic regression analysis was applied. The results obtained were summarized as follows:

- The statistical significance of the model (Omnibus test) was reported through the Chi-square test value (χ^2) and the statistical significance level (p).
- Predictive capacity (R^2) was assessed using both Cox-Snell and Nagelkerke methods.
- The logistic model coefficients and their significance within the model were reported (B, SE, W, p).
- The odds ratio (OR) was presented through the value of $\exp(B)$.

Distraction

The tested model is statistically significant ($\chi^2=33.12$, $p=0.001$), with a predictive capacity of 20.4% ($R^2=0.204$). The sex difference serves as a negative predictor (B=-1.66, W=27.28, $p=0.001$), indicating a lower level of distraction in girls. In the literature, girls are often described as having greater self-control and better long-term attention maintenance compared to boys (Ruff & Rothbart, 2001).

Prayer (Religious Coping)

The tested model is statistically significant ($\chi^2=11.55$, $p=0.009$), with a predictive capacity of 10.1% ($R^2=0.101$). The presence of the illness serves as a positive predictor ($B=1.02$, $W=5.05$, $p=0.025$), indicating a higher level of prayer among those with Type 1 Diabetes (T1D). The model for religious coping, as measured by prayer, demonstrates that the presence of T1D significantly impacts the use of this coping strategy (Figure 2). This means that individuals with T1D are more likely to resort to prayer as a method of religious coping compared to those without diabetes. This increased use of prayer may reflect a search for spiritual and emotional support in the face of the difficulties and stress associated with diabetes management. In the literature, religious coping, including prayer, is often studied in the context of chronic illnesses. Studies suggest that individuals with chronic conditions, such as diabetes, may utilize prayer and other religious practices as a means of coping with the stress and challenges related to their illness (Koenig, 2012; Pargament și colab., 2004).

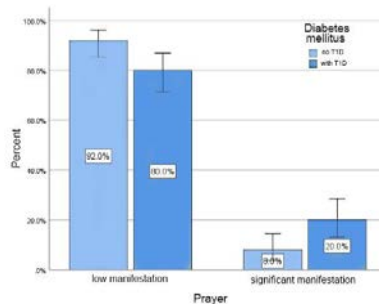


Figure 2. Comparison of Prayer coping strategies between children with and no T1D

Self-Blame

The tested model is statistically significant ($\chi^2=12.64$, $p=0.005$), with a predictive capacity of 8.5% ($R^2=0.085$). Gender differences serve as a positive predictor ($B=1.09$, $W=11.92$, $p=0.001$), indicating a higher level of self-blame among girls. Girls may be more inclined to take personal responsibility for the challenges they face or to excessively blame themselves compared to boys. The literature indicates that gender factors can influence coping styles, and girls may be more susceptible to exhibiting self-blame than boys, due to social norms and various psychological pressures (Nolen-Hoeksema, 2001).

Social Support

The tested model is statistically significant ($\chi^2=9.98$, $p=0.001$), with a predictive capacity of 6.6% ($R^2=0.066$). Age differences serve as a negative predictor ($B=-1.21$, $W=7.99$, $p=0.005$), indicating a decrease in the manifestation of social support as age increases (Figure 3). This result suggests that as children grow and go through different developmental stages, they may experience lower levels of social support. This decline may be linked to changes in social networks, communication technology, increased responsibilities, or different perceptions of social interactions. The reduction of social support with age is a common observation in research on social and psychological development. Studies suggest

that over a lifetime, as individuals age, social support networks may become smaller and relationships more complex (Hughes și colab., 2004).

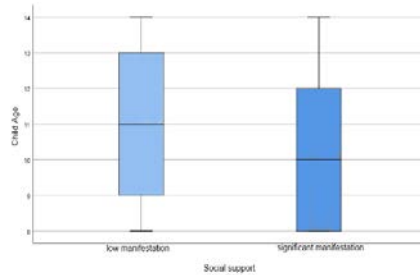


Figure 3. Manifestation of Social support among children by age group

Emotional Regulation

Emotional regulation is poorly manifested among the research subjects, with a clear manifestation rate of only 17%, and all of these subjects belong to the category of children with Type 1 Diabetes (T1D). The low prevalence suggests that children with T1D may face significant challenges in managing their emotions, which can negatively affect their emotional and psychological adaptation (Figure 4). The presence of diabetes can add an additional level of stress and pressure on children, contributing to difficulties in emotional regulation. Generally, children with chronic conditions like T1D may experience greater challenges in emotional regulation due to the additional stress and challenges associated with the disease (Gioia și colab., 2000). Studies have shown that the rigorous management regimen for diabetes and the long-term impact of the illness can affect children's ability to manage their emotions (Lange, K., Aroian, K. J., & Arfken, C. L., 2007).

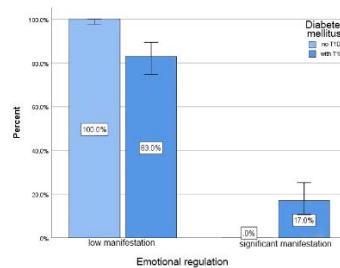


Figure 4. Comparison of Emotional regulation coping strategies between children with and no T1D

Wishful Thinking

The tested model is statistically significant ($\chi^2=13.30$, $p=0.004$) with a predictive capacity of 9.4% ($R^2=0.094$). The presence of Type 1 Diabetes (T1D) serves as a positive predictor ($B=1.07$, $W=9.73$, $p=0.002$), indicating a higher level of manifestation among children with T1D (Figure 5). This result suggests that, among children with T1D, there is a more pronounced expression of the studied effect compared to those without T1D. Wishful thinking refers to the tendency to hope for or dream of favorable situations as a form of coping, rather than addressing problems realistically. This can be a mechanism for adapting to the

ongoing stress and challenges associated with managing a chronic illness. However, excessive reliance on wishful thinking may hinder the development of more practical and realistic coping strategies (Thompson și colab., 2013). Idealistic thinking may be influenced by a lack of adequate information or insufficient emotional support.

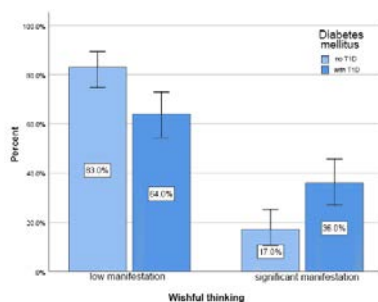


Figure 5. Comparison of Wishful thinking coping strategies between children with and no T1D

Blaming Others

The tested model is statistically significant ($\chi^2=13.17$, $p=0.004$) with a predictive capacity of 8.6% ($R^2=0.086$). The difference in sex serves as a negative predictor ($B=-0.84$, $W=7.61$, $p=0.006$), indicating a lower level of manifestation among girls. Blaming others may be a less constructive coping strategy. Girls tend to exhibit a lower level of blaming others, potentially due to social norms or differences in problem-solving styles. Blaming others refers to the tendency to attribute personal problems or difficulties to external sources (Lazarus & Folkman, 1984).

Resignation

The tested model is statistically significant ($\chi^2=11.89$, $p=0.008$) with a predictive capacity of 8.5% ($R^2=0.085$). Gender difference represents a positive predictor ($B=1.10$, $W=10.41$, $p=0.001$) indicating a higher level of manifestation among girls. Girls tend to exhibit a higher level of resignation. Resignation refers to a passive acceptance of difficult situations, where the individual feels powerless to change the circumstances. This may reflect differences in how girls and boys cope with challenges and stress (Carver, 1997).

Problem Solving

The tested model is statistically significant ($\chi^2=16.71$, $p=0.001$) with a predictive capacity of 10.9% ($R^2=0.109$). The presence of diabetes (DZ) represents a negative predictor ($B=-1.02$, $W=11.12$, $p=0.001$), indicating a higher level of problem-solving strategies among children with Type 1 Diabetes (T1D). This result suggests that children with T1D are more likely to employ problem-solving strategies compared to those without diabetes (Figure 6). This may reflect a greater inclination to seek concrete solutions and actively address issues in response to the additional challenges posed by managing a chronic illness (Folkman & Moskowitz, 2004). In the context of psychological and educational interventions, promoting and strengthening problem-solving strategies may be beneficial for children with

T1D. Such strategies can aid in developing the ability to cope with difficult situations and in managing the psychological effects of the disease.

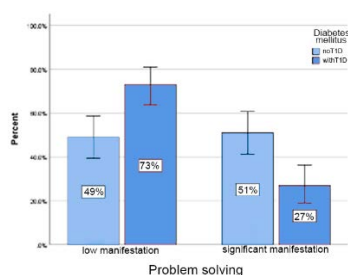


Figure 6. Comparison of Problem solving coping strategies between children with and no T1D

The results of the binary logistic regression analysis do not indicate statistical significance in predicting the use of **Cognitive restructuring** and **Social withdrawal** as coping mechanisms based on demographic variables such as gender, age, and the presence of Type 1 Diabetes (T1D). The model tested for cognitive restructuring (Chi-square = 3.62, $p = 0.306$) and for social withdrawal (Chi-square = 2.83, $p = 0.418$) fails to explain significant variation in the use of these coping strategies. The R^2 values, ranging from 0.014 to 0.019, suggest that the variables included in the models have a limited influence on the outcomes. Other factors, such as family context, social support, or individual psychological traits, may have a greater impact, as suggested by the literature (Compas și colab., 2001; Seiffge-Krenke, 2001).

The research identified significant associations between certain coping strategies and the negative thoughts of children with Type 1 Diabetes (T1D) related to perceived threats (Table 2). Emotional regulation is associated with a normal level of physical threat, suggesting that children who can manage their emotions healthily perceive physical threats (such as hypoglycemia or diabetes complications) at a more manageable level, without exaggerating the perceived danger. Conversely, resignation is linked to an abnormal level of physical threat, indicating that children who resign in the face of difficulties tend to perceive physical threats as greater and more overwhelming, which can amplify stress and anxiety related to the illness.

Social withdrawal and wishful thinking significantly correlate with a normal level of social threat. This suggests that these children are able to minimize the perception of differences from peers or mitigate the social impact of diabetes through temporary withdrawal strategies or fanciful thoughts that help them cope with stressful social situations. In turn, self-blame is associated with a reduced level of personal failure. This indicates that when children take responsibility for their difficulties, it can lessen feelings of failure, as they tend to learn from mistakes and adjust their behavior rather than feel overwhelmed.

Regarding hostility, it is influenced by both maladaptive coping mechanisms, such as resignation and social withdrawal, and adaptive mechanisms, such as cognitive restructuring and social support. Thus, children who engage in cognitive restructuring and receive support from those around them are better able to manage

hostility, whereas those who resign or socially withdraw tend to exhibit higher levels of hostility.

These findings highlight the importance of developing adaptive coping mechanisms and promoting social support, cognitive restructuring, and emotional regulation within a dedicated psychotherapeutic program. Such a program could reduce the perception of threats and enhance children’s ability to manage diabetes-related stress while cultivating resilience.

Table 2. Descriptive analysis of Threats

Threats		Omnibus Test		R ²		Model coefficients				
No.	Factor	$\chi^2(3)$	<i>p</i>	C-S	N	<i>B</i>	<i>S</i> <i>E</i>	<i>Wal</i> <i>d</i> (<i>df</i> =1)	<i>p</i>	<i>Exp</i> (<i>B</i>)
Physical threat	Resignation					1.2	0.	5.3	0.0	3.6
	Emotional regulation	49.	0.0	0.2	0.3	9	56	9	20	2
Social threat	Social withdrawal					-	0.	4.9	0.0	0.1
	Wishful thinking	30.	0.0	0.1	0.1	2.1	95	8	26	2
Personal failure	Self-blame					1				
		30.	0.0	0.1	0.1	1.4	50	3	04	4
Hostility	Resignation	26	01	40	83	5		5.8	0.0	0.3
	Social support					1.1	48	2	16	2
Hostility	Cognitive restructuring					6		9.9	0.0	0.2
	Whishful thinking	30.	0.0	0.1	0.1	1.3	43	8	02	6
Hostility	Social withdrawal	41	01	41	89	6		24.	0.0	25.
						3	65	47	01	34
Hostility						1.9	0.	12.	0.0	7.1
						7	54	90	01	8
Hostility		56.	0.0	0.2	0.3	1.7	0.	8.8	0.0	5.9
		75	01	47	33	8	60	1	03	0
Hostility						1.4	0.	7.2	0.0	4.1
						3	53	0	07	7
Hostility						1.3	0.	6.2	0.0	4.0
						9	56	4	12	1

4. CONCLUSIONS

The research guides the development of a psychotherapeutic intervention aimed at supporting resilience in children by strengthening and developing new coping strategies, thereby reducing negative thoughts associated with perceived threats. Through such interventions, we aim to promote a sense of competence and self-efficacy, helping children take control of challenging situations through effective emotional regulation and problem-solving strategies. We specifically

recommend addressing ways to manage hostility through cognitive restructuring and social support, fostering an atmosphere of encouragement and acceptance. The ultimate goal is to equip children with the necessary tools to manage both daily challenges and those specific to diabetes, thereby reducing the negative impact of dysfunctional thoughts and strengthening the internal resources needed for optimal adaptation to life with a chronic illness.

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RELATIONSHIP BETWEEN VULNERABLE NARCISSISM, PATHOLOGICAL ALTRUISM AND CODEPENDENCY IN YOUNG ADULTS

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Abstract

This study examines the interplay between vulnerable narcissism, pathological altruism, and codependency among young adults, while also addressing gender differences in these variables. Utilizing a correlational research design, a sample of 400 students aged 18-25 from Forman Christian College University was analyzed. Data collection involved demographic questionnaires and surveys, including the Maladaptive Covert Narcissism Scale, the Pathological Altruism questionnaire, and the Spann-Fischer Codependency Scale, all demonstrating strong reliability. The analysis employed Pearson product-moment correlation coefficients and hierarchical regression to assess relationships and predictive significance, alongside independent t-tests to evaluate gender disparities. Results indicated significant positive correlations among all three variables, with vulnerable narcissism and pathological altruism being strong predictors of codependency. Additionally, findings revealed that women exhibited higher levels of codependency compared to men. The study concludes with notable findings and recommendations for future research, emphasizing the implications of these relationships in understanding young adult behaviours.

Keywords: *Pathological Altruism; Vulnerable Narcissism; Codependency; Young Adults; Pakistan*

1. INTRODUCTION

Various associations have been made between pathological altruism, vulnerable narcissism and codependency before (Oakley et al., 2012; Kaufman & Jauk, 2020; Bachner-Melman & Oakley, 2016; Oakley & McGrath, 2011, 2012; Farmer, 1999), however, the nature and direction of the relationship between the three variables are yet unclear due to scarcity of empirical studies as per the knowledge of the researcher. The primary purpose of the present research is to study the relationship between vulnerable narcissism, pathological altruism, and codependency in young adults.

Vulnerable Narcissism

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Havelock Ellis, the first psychoanalyst called Narcissus's condition to be that of "auto-eroticism" (being one's own sexual object), and then Freud (1905) named it "ego-libido" (self-love) and interchanged it with "narcissistic libido" (1953) in his theory of sexuality. However, it was Ernest Jones (1913), according to Konrath (2007) who construed narcissism as a character trait by calling it the "God-complex". Jones described these people as "aloof, inaccessible, self-admiring, self-important, overconfident, auto-erotic, and exhibitionistic, with fantasies of omnipotence and omniscience" (1913). After Jones's research back in 1913, Horney (1939) developed narcissism into having many "divergent" traits. Wink (1991) distributed narcissism into two types: Vulnerable-Sensitivity (covert narcissism) and Grandiosity-Exhibitionism (overt narcissism). In a 2013 study by Miller et al. the traits of "negative affectivity, detachment, disinhibition, and psychoticism" were significantly correlated with vulnerable narcissism. Miller and Maples (2011) discuss trait personality models of vulnerable narcissism in an important handbook collection on the NPD. They mention Cian et al. (2008)'s list of terms associated with vulnerable narcissism, which consists of words like: "craving, contract-shunning, covert, thin-skinned, hypervigilant, shy".

Pathological Altruism

Oakley et al. (2012) introduce pathological altruism as any behaviour or tendency where the aim or motivation to help others has irrational negative consequences for others and the self, which one can reasonably foresee. It's anyone who engages sincerely in altruistic acts but ends up harming the person or people they had initially set out to help unconsciously or in an unanticipated fashion. They end up becoming victims of this irrationality due to their supposedly altruistic aims. Pathological altruism is also explained in the study by saying that while altruism is the good side of human nature, pathological altruism is the dark side. Homant & Kennedy (2012) characterized pathological altruism as a form of "maladaptive altruism", and determined heuristics that may be real instances of pathological altruism. Pathological altruism had only been seen from a psychoanalytic lens, until Oakley et al. (2012) worked on this phenomenon by incorporating various perspectives, fields, approaches and viewpoints. Altruism's pathologies may be related to a lot of conditions, like the selflessness of eating-disordered people which Rachel Bachner-Melman explores (2012). According to Rachel, individuals with eating disorders also sacrifice their own needs and deprive themselves to devote themselves to others. This is caused by cultural environments, families, interpersonal relationships and genetic factors. Pathological altruism is also highly relevant to a lot of other conditions in our daily lives. For example, Klimecki and Singer (2012) have worked on 'empathic distress fatigue', commonly and wrongfully known as 'compassion fatigue' where they worked to find how empathy leads to distress. The study does not make connections directly but it can be seen how compassion fatigue may be a form of pathological altruism since it becomes harmful to ourselves. O'Connor et al. (2012) researched empathy-based pathogenic guilt, saying how this guilt can become pathogenic when it's based on the false belief that, once compared, one's happiness and success are a source of

unhappiness for others. This pathogenic guilt, the research mentions, leads to pathological altruism by harming oneself and others.

Codependency

Codependency has been thought to originate from families that have a dependence on their relationships (Knudson & Terrell, 2012), whether the families have substance abuse issues, sexual abuse or certain chronic illnesses. However, Beattie lists codependency's characteristics with the following terms: "caretaking, low self-worth, repression, obsession, controlling, denial, dependency, poor communication, weak boundaries, lack of trust, anger" and a few more. Springer et al. (1988) attempted to clarify the construct by defining it as an unhealthy devotion to any relationship that can cost a codependent person's personal and psychological needs. Codependency also entails difficulty establishing intimate relationships (Woititz, 1983), feelings of loss of identity and an addiction to love when it comes to intimate relationships (Hogg & Frank, 1992) and factors like anxiety, boundary distortions, hypervigilance and excessive reliance on denial (Cermak & Brown, 1982) or as Smalley (1984) puts it, "a drive toward constant external validation". Oakley & McGrath (2012) define codependency as "an inability to end a dysfunctional relationship" which leads to a dysfunctional empathetic response. Dear et al. (2004)'s systematic analysis of the main definitions of codependency found four consistent elements: external focusing, self-sacrifice, interpersonal conflict and control, and emotional constraint. In one of the first qualitative interpretative phenomenological analyses (IPA) examining the experience of codependency, four main themes emerged: lack of sense of self, codependency feeling real and tangible, sense of abandonment and control and emotional and occupational imbalances (Bacon et al., 2020).

2. OBJECTIVE AND HYPOTHESES

2.1. OBJECTIVE

Understanding pathological altruism through different perspectives of psychology and social lenses will clarify its relationship to personality and traits, hereby explaining this distinct pathological human behaviour. Additionally, due to its associations with narcissism, especially vulnerable narcissism (Kaufman & Jauk, 2020), it is imperative to study if this phenomenon leads to narcissistic traits of vulnerability to affect it. It is crucial to understand how to control and understand at what point altruism can turn pathological for someone. The present thesis aims to clarify the connections between the three variables, it will help other researchers develop clinical implications of pathological behaviour and underline how it can be navigated in a healthier, careful way for mental health studies and for people who are pathologically altruistic, vulnerably narcissistic and codependent.

2.2. HYPOTHESES

1. There is a positive correlation between vulnerable narcissism and pathological altruism, vulnerable narcissism and codependency and pathological narcissism and codependency.

2. Pathological altruism and vulnerable narcissism will predict codependency in young adults.

3. There is a gender difference in pathological altruism, vulnerable narcissism and codependency.

3. METHOD

A quantitative correlational design was implemented with a non-random sampling methodology based on ease of access i.e. convenient sampling. The population included FCCU's undergraduate students in Lahore, Pakistan. The sample size was $N = 400$, with (50%) women, and (50%) men, with a mean age range of 18-25 at $M = 21.4$. Their education level included fresher students (17.3%), sophomores (20.3%), juniors (26.5%) and seniors (38%). The students were reached out with the goal of putting in a conscious effort to reach diverse majors and fields.

Other than the demographics questionnaire, three standardized psychometric scales were given to volunteering participants in hard copies after gaining permission from their authors.

Pathological Altruism Scale constructed by Scott Barry Kaufman and Emanuel Jauk by connecting closely-related conceptual measures of pathological altruism and unhealthy selfishness. Since the focus of research was only on pathological altruism, only the 10-item PA scale was used. The variance was significant as well and proved to be significant for all 10 items ($p < 0.001$). The Maladaptive Covert Narcissism Scale (Cheek et al., 2013), a 23-item scale, was developed by Jonathan M Cheek, Holly M. Hendin and Paul Wink, mainly to improve the reliability and item content of the more popularly known 10-item Hypersensitive Narcissism Scale (HSNS) that Hendin and Cheek developed in 1997. The Spann-Fischer Codependency Scale (SF CDS) was constructed by Fischer et al. (1991). This is a 16-item scale, which showed a test-retest correlation of 0.87, and an internal consistency Cronbach's alpha of 0.86. The scale is reverse-coded for 2 items, with higher scores meaning greater codependency. It is rated on a 6-point Likert scale with 1 being "Strongly Disagree" to 6 being "Strongly Agree."

Permission was sought from the authors of the three survey instruments to be used in this thesis. The study procedure began by first gaining permission from the Institutional Review Board (IRB) and Ethical Review Committee (ERC). After approvals, a pilot study was conducted with 10% of the sample, $N = 30$, consisting of 15 women and 15 men to estimate the average required time for the administration of scales and whether the participants find the language comfortable and easy enough to decipher. Important feedback included formatting issues which were fixed. The ethical standards of the American Psychological Association (2017) were followed throughout the study.

4. RESULTS

Descriptive Analysis

Table 2. Demographic Characteristics of Sample (N=400)

Sample Characteristics	n	(%)	M	SD
Gender				
Girls	200	50		
Boys	200	50		
Age				
18-25			21.40	1.57
Educational Level				
Fresher Year	69	17.3		
Sophomore	81	20.3		
Junior	106	26.5		
Senior	144	36		
Major				
Education	2	0.5		
Humanities	16	4		
Social Sciences	213	53.25		
Natural Sciences	16	4		
Computer Sciences	87	21.8		
Management	56	14		
Pharmacy	5	1.25		
Undecided	5	1.3		

Note. n = frequency, % = percentage

Table 2 shows 50% women and 50% men, with the age range of 18-25 taken to include young adults only. In terms of the education level, 36% of the population turned out to be seniors whereas 20% were sophomores. Most of the sample belonged to the social sciences category (53%) in terms of major subjects.

Inferential Analysis and Testing of Main Hypotheses

Hypothesis 1: There is a positive correlation between vulnerable narcissism and pathological altruism, vulnerable narcissism and codependency and pathological narcissism and codependency.

Table 3. Pearson product-moment correlation coefficient for PA, SFCDS and MCNS (N=400)

Variables	N	M	SD	PA	SFCDS	MCNS
PA	400	31.96	6.64	–		
SFCDS	400	60.14	11.72	.659**	–	
MCNS	400	70.16	13.92	.450**	.580**	–

Note. PA = Pathological Altruism, SFCDS = Codependency, MCNS = Vulnerable Narcissism

** . Correlation is significant at the 0.01 level ($p < .01$)

A Pearson product-moment correlation coefficient was computed to assess the relationship between vulnerable narcissism and pathological altruism, vulnerable narcissism and codependency and pathological narcissism and codependency. Pearson correlation between pathological altruism and codependency was found to be positive and statistically significant ($r=.659$, $p <.01$), between pathological altruism and vulnerable narcissism was found to be positive and statistically significant ($r=.450$, $p<.01$), between vulnerable narcissism and codependency was found to be positive and statistically significant too ($r=.580$, $p<.01$). In terms of strength, it is noted how the correlation between pathological altruism and codependency is the strongest with ($r = .659$, $p <.01$), the second strongest correlation was between vulnerable narcissism and codependency with ($r = .580$, $p <.01$), and the least strong correlation between vulnerable narcissism and pathological altruism ($r = .450$, $p <.01$). Hence, H1 was supported; there was a strong correlation between all the variables. Any increases in pathological altruism were correlated with increases in vulnerable narcissism and codependency. Any increases in vulnerable narcissism were correlated with increases in pathological altruism and codependency. Any increases in codependency were correlated with increases in pathological altruism and vulnerable narcissism. The key finding for the correlation found between the variables stated that there was a fairly strong positive and statistically significant correlation between vulnerable narcissism, pathological altruism and codependency. In the previous research, it is indicated how there are associations between the variables, but no assumptions could be made that provide which relationship is the strongest. This study provided results indicating that the correlation between pathological altruism and codependency was the strongest, with the second strongest correlation made between vulnerable narcissism and codependency and the least strong correlation was found between vulnerable narcissism and pathological altruism. It is worth mentioning how codependency relating to pathological altruism and to vulnerable narcissism led to the two stronger correlations, however, this is speculative until a mediation or moderation research can confirm this in a future research. In terms of behaviour, if an individual suffers from pathological altruism, they might show signs of excessive self-sacrifice (Oakley, 2012), dependent personality disorder, maladaptive agreeableness (Widiger & Pressnall, 2012), empathic distress fatigue (Klimecki & Singer, 2012) and empathy-based pathogenic guilt (O'Connor et al., 2012). Oakley et al. (2012) did previously find how someone's altruistic intentions perform the harmful deed of codependency, and in a previous study, they also mentioned how codependency can be a form of pathological altruism. There is a definite need to address what specific types of behaviour are prevalent in people experiencing pathological altruism to uncover specific traits that can be described as common.

Hypothesis 2: Pathological altruism and vulnerable narcissism will predict codependency in young adults.

Table 4. Hierarchical Regression Results for Codependency

Variable	B	95%CI		SE B	β	R^2	ΔR^2	
		LL	UL					
Step 1							.43	.43***
Constant	29.99***	18.72	27.25	2.17				
Pathological Altruism	1.16***	1.03	1.29	0.06	.65***			
Step 2							.53	.10***
Constant	11.00***	6.37	15.63	2.35				
Pathological Altruism	0.88***	0.74	1.01	0.06	.49***			
Vulnerable Narcissism	0.30***	0.23	0.36	0.03	.35***			

Note. B = Unstandardized Beta, β = Standardized Beta, SE = Coefficient Standard Error, CI = Confidence Interval

*** $p < .001$

Table 4 shows the hierarchical regression analysis performed to find the impact of pathological altruism and vulnerable narcissism on codependency. In Step 1, the R^2 value of .43 revealed that pathological altruism explains 43% variance in codependency with $F(1, 398) = 305.76, p < .001$. The findings revealed that pathological altruism strongly and positively predicted codependency ($\beta = .65, p < .001$). In Step 2, the R^2 value of .53 revealed that pathological altruism and vulnerable narcissism both explained 53% variance in codependency with $F(2, 397) = 228.59, p < .001$. The findings revealed that codependency ($\beta = .49, p < .001$) and vulnerable narcissism ($\beta = .35, p < .001$) positively and strongly predicted codependency. The ΔR^2 value of .10 revealed 10% change in the variance of model 1 and model 2 with $\Delta F(1, 397) = 86.07, p < .001$. Both pathological altruism and vulnerable narcissism predictors showed positive and statistically strong predictive relationships with codependency. Codependency has shown associations with pathological altruism before when Oakley and McGrath (2012) stated how the two variables share roots with each other and how codependency may be a form of pathological altruism. Oakley et al. (2012) found that codependency is committed with altruistic intentions while Rosenberg states how passive codependents avoid conflict by dissociating from their anger by being empathetic and kind. However, no predictions were made earlier as to how pathological altruism can predict codependency, which the present study finds to be a strong prediction. In the context of vulnerable narcissism and codependency, there is little empirical data. Rossiter (2004) has found how narcissistic personality disorder, if termed in a feminist manifestation, can help understand codependency. This comes from a woman surrendering her own needs and presenting their “false self”, looking to search self-development resources in other people and places rather than themselves, which is a narcissistic tendency. Moreover, codependents have behaviors that show subtle narcissism entitlements (Farmer, 1999). However, it wasn't clear before this present study, on how strongly vulnerable narcissism can cause codependency, which is a significantly strong prediction.

Hypothesis 3: There is a gender difference in pathological altruism, vulnerable narcissism and codependency.

Table 5. Mean, Standard Deviation, *t* and *p* Values, and Cohen's *d* Values of Boys and Girls

Variables	Boys (<i>n</i> =200)		Girls (<i>n</i> =200)		<i>t</i>	<i>P</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
<i>PA</i>	31.49	6.27	32.43	6.98	1.416	.15	0.141
<i>SFCDS</i>	58.49	11.68	61.79	11.55	2.844	.005	0.284
<i>MCNS</i>	70.42	13.82	69.90	14.04	-3.73	.709	0.037

Note. PA = Pathological Altruism, SFCDS = Codependency, MCNS = Vulnerable Narcissism

The independent-sample *t*-test was conducted to compare pathological altruism, vulnerable narcissism and codependency for boys and girls. There was a significant difference $t(398) = 2.84, p < .05$ in the codependency scores with the mean score for boys ($M = 58.49, SD = 11.69$) lower than girls ($M = 61.79, SD = 11.55$). The mean difference was 3.3, showing girls are likely to be more codependent than boys. Codependency's Cohen's *d* was 0.28, which means there was a small effect or magnitude difference in the gender. There were no significant differences $t(398) = 1.41, p > .05$ in pathological altruism scores for boys ($M = 31.49, SD = 6.27$) and girls ($M = 32.43, SD = 6.98$), as well as no statistical difference $t(398) = -3.7, p > .05$ in the vulnerable narcissism scores for boys ($M = 70.42, SD = 13.82$) and girls ($M = 70, SD = 14.04$). Thus, a significant difference was found in gender in terms of codependency, however, there were no significant gender differences found when it came to pathological altruism and vulnerable narcissism. This falls in line with previous research into codependency in terms of women having higher scores in codependency than men (Irvine, 1995; Hands & Dear, 1994; Dear & Roberts, 2002; Cullen & Car, 1999). As far as the gender differences are concerned in previous research, it makes sense that women are more codependent with their caregiving, nurturing, self-sacrifice and compromise, which is also culturally promoted as the norm in women. Women also tend to rely on other people for approval more than men do (Dear & Roberts, 2002). It can also be explained with Rossiter's research (2004) saying codependency can be understood via a feminist manifestation of the narcissistic personality disorder, indicating how women score higher in both codependency and vulnerable narcissism. As far as vulnerable narcissism is concerned, previous research (Besser & Priel, 2010; Miller et al., 2010; Onofrei, 2009; Pincus et al., (2009); Wright et al., 2010) do show women had higher scores than men. However, the present study showed a statistically non-significant result and the least effect size in terms of vulnerable narcissism gender differences if compared to the rest of the variables. It does fall in line with Grijalva et al. (2015)'s study when they found men and women did not differ in vulnerable narcissism. More research is needed into what may cause some cultures to have fewer differences in gender when it comes to

vulnerable narcissism, since one possibility may be the difference between Western and Eastern cultures in narcissism, especially vulnerable narcissism.

5. CONCLUSIONS

The present research adds to the literature in Pakistani psychological studies by finding statistically significant correlations between vulnerable narcissism, pathological altruism and codependency in young adults. While significant gender differences were not found in vulnerable narcissism and pathological altruism, codependency did reveal a statistically significant difference. This is hereby an important finding in terms of the Pakistani context, where further research can explore the reason for minimal differences in the rest of the world and in Pakistan. A deeper research is needed into all three variables individually too, with the aim of identifying what traits are most critical to mitigate. A similar study in Pakistan could also help test the test-retest reliability, aiding to the theoretical model and strength.

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FACTORS GENERATING DIFFERENCES IN MOTIVATION AND ACADEMIC ENGAGEMENT AMONG STUDENTS

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Abstract

On an educational level, it has been observed almost universally worldwide that perceptions regarding students' motivation and academic engagement at the individual, team, or organizational levels have been influenced by the pandemic crisis, which prompted many higher education institutions to implement significant changes. This situation has impacted both students' psychological well-being and aspects of their academic engagement and participation in educational activities, leading to a decline in study motivation during both the pandemic and post-pandemic periods. This presentation highlights the results of a quantitative study conducted on a sample of 149 students, aimed at evaluating the factors that can generate differences in motivation and academic engagement. The study's conclusions identify several factors contributing to these differences, including the student's gender, attendance at courses and the number of absences, involvement in course activities, completion of assignments and projects proposed by instructors, as well as the year of study.

The research provides new arguments for emphasizing and improving certain aspects that are practically important for optimizing the academic education process.

Keywords: *motivation, intrinsic motivation, extrinsic motivation, academic engagement, students.*

1. INTRODUCTION

Over time, a series of studies have been conducted in the field of educational psychology, most of which have concluded that the educational process is a decisive stage in human development, influenced by various factors related to the specific

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characteristics of the student, the features of the educational environment, as well as the motivation to achieve performance (Perkman, 2021).

It has been highlighted that motivation directly linked to academic performance represents an active and fundamental element in the learning process, acting as a major force that directs, energizes, and regulates students' overall behaviour, with a direct impact on their academic engagement. Psychological well-being is identified as a determining factor in the lives of all individuals (Sîrbu, 2016).

In the context of general academic instruction for students, recent years have been marked by profound changes due to the period influenced by pandemic-related restrictions. The transition from physical learning environments to online settings initiated an adaptation phase to the new, often unfamiliar formats. This adjustment varied among both educators and students, leading to behaviors and attitudes that directly impacted academic engagement and students' overall performance.

Moreover, the prolonged pandemic period and the subsequent acceptance of online learning environments introduced a new challenge when transitioning back to hybrid or physical learning formats. Research has highlighted another necessary adaptation phase, similarly, affecting psychological well-being as well as behaviors related to academic engagement and performance. Global data indicates that the dropout rate in higher education is nearly 40%, raising a critical alarm for identifying factors that can positively impact students' academic engagement while simultaneously reducing the dropout rate (Hanson, 2024).

An important factor analysed in relation to students' academic engagement is motivation, which underpins individual behaviour, ensures successful adaptation to the environment, and facilitates the achievement of superior performance (Maslow, 2007). Motivation has been broadly and diversely defined by theorists who have explored various models and methods of explaining it. Consequently, definitions of motivation derived from these theories are varied, primarily describing a specific characteristic of the human psyche that reflects a particular state of need.

One of the most important theories of motivation is the one proposed by Ryan and Deci, which addresses aspects of motivation and behavior (Deci & Ryan, 1985). The theory proposed by these authors has been applied and tested across various fields of activity, with the results supporting many of the concepts explored. Building on the concepts of intrinsic and extrinsic motivation, the researchers highlighted the fundamental idea that individuals can transition from extrinsic to intrinsic motivation through a specific process of internalization (Deci & Ryan, 1990).

The concept of motivation for achievement was introduced by McClelland (1985), who began his studies based on Maslow's hierarchy of needs model. However, the new direction McClelland brought forward is characterized by the evaluation of the consequences of behaviours specific to certain needs. The individual is driven by three types of needs: affiliation, achievement, and power

(either personal or institutionalized). These needs are not innate and can be learned (McClelland, 1985).

In 1992, a new taxonomy of motivation was proposed by Vallerand and his collaborators, who suggested three defining elements of intrinsic motivation: intrinsic motivation for knowledge, intrinsic motivation for achievement, and intrinsic motivation for experiencing stimulation. Additionally, the authors proposed three dimensions of extrinsic motivation within the theory: extrinsic motivation for regulation, extrinsic motivation for introjection, and extrinsic motivation for internalization. One final aspect of this theory is the concept of lack of motivation, or amotivation, which is linked to the phenomenon of learned helplessness (Vallerand, 1992).

The research conducted within this broader context of the global educational impasse complements a recent study conducted in Pakistan by researchers Akram and Li, which concluded that the facets of intrinsic and extrinsic motivation play a determining role in academic engagement, including in online activities (Akram & Li, 2024). Thus, the present research aims to highlight certain factors related to students' activities in the academic environment, factors that can be directly and effectively used to improve aspects related to intrinsic and extrinsic motivation, and implicitly, to have a favourable impact on students' academic engagement.

2. OBJECTIVE AND HYPOTHESES

2.1. OBJECTIVE

The objectives of the research focused on:

1. Evaluating differences in extrinsic motivation based on gender, the year of study the students are in, and their attendance at courses.
2. Highlighting the difference in intrinsic motivation among students based on their level of activity in courses and the way they complete assignments and projects.
3. Identifying differences in academic engagement among students based on the level of activity students maintain during courses and seminars.

2.2. HYPOTHESES

To achieve the research objectives, the following hypotheses were formulated:

H1. There is a difference in students' extrinsic motivation based on their gender, the year of study they are in, and their level of attendance at courses.

H2. A difference in students' intrinsic motivation is evident, as reflected by their level of participation in courses and the completion of assignments and projects.

H3. A difference in academic engagement occurs among students based on the intensity of their active participation in courses and seminars.

3. METHOD

3.1 The participants

The research sample consists of a total of 149 students from the Faculty of Psychology and Educational Sciences at Hyperion University in Bucharest. The sample is made up of 16% male respondents and 84% female respondents, with an average age of 32 years. Of the respondents, 88% come from urban areas, while 12% come from rural areas. Regarding the year of study, 55% of respondents are in their first year, 32% are in their second year, and 13% are in their final year. In terms of attendance at courses and seminars, 55% report having few absences, 30% report a moderate number of absences, and 14% have a high number of absences. Regarding participation in courses and seminars, 18% confirm they engage in minimal activity, 44% are moderately active, and 38% confirm they have a high level of engagement. As for completing assignments and projects, 67% of respondents confirm they complete them on time, 28% prefer to do them last minute, and 5% do not complete them at all.

3.2 The instruments

The „Academic Motivation Scale (AMS-C 28)”, developed by R.J. Vallerand and his collaborators in 1992, is an instrument based on self-determination theory that measures three levels of the motivational process: intrinsic motivation, extrinsic motivation, and amotivation. The internal consistency coefficient calculated from the data obtained in the studied sample is .895 (Vallerand et al., 1993).

The „Academic Engagement Scale”, developed by S. Zhang and collaborators in 2015, was created to evaluate students' academic engagement. The internal consistency coefficient calculated from the data obtained in the studied sample is .885 (Zhang et al., 2015).

3.3 Procedure

The two scales were incorporated into a Google Forms questionnaire, along with socio-demographic items and items related to students' activities, which were included as independent variables. The questionnaire was distributed online to the respondents. Participants in the study were informed about the research objectives, the scales used, voluntary participation, the confidentiality of the data, and the use of the data exclusively at the sample level. Additionally, respondents were informed about their right to withdraw from the study without any further consequences. The ethical code of the psychology profession and data confidentiality according to GDPR were respected.

3.4 The design

For this research, two categories of variables were studied:

1. Dependent variables: academic engagement (AE), intrinsic motivation for achievement (IMAch), intrinsic motivation for knowledge (IMKnow), and intrinsic motivation for stimulation (IMStim), extrinsic motivation for regulation (EMReg), extrinsic motivation for identification (EMIdent), and extrinsic motivation for introjection (EMIntro).

2. Independent variables: gender (female, male), year of study (I, II, or III), attendance at classes (few, moderate or many absences), activity during classes (low, moderate or high activity), completion of assignments and projects (on time, last minute or not at all).

The research design is non-experimental (Vasiliu, 2018), of the type: N: O1 O2, where O1 represents the measurement of academic engagement, and O2 represents the measurement of the components of academic motivation in students.

4. RESULTS

The collected data were analysed in terms of the distribution of the obtained values. The results of the Kolmogorov-Smirnov normality test indicated that only the academic engagement variable follows a distribution like a normal distribution, while the other dependent variables show values that do not follow a normal distribution (Table 1).

Table 1 – Kolmogorov-Smirnov Normality Test

	AE	IMKnow	IMAch	IMStim	EMIdent	EMIntro	EMReg
N	149	149	149	149	149	149	149
Kolmogorov-Smirnov Z	1.02	2.47	1.57	1.28	2.46	1.71	1.58
Asymp. Sig. (2-tailed)	.249	.000	.009	.058	.000	.003	.009

Based on these results, since the normality of the distribution is not confirmed for most of the dependent variables analyzed, the hypotheses were tested using the appropriate non-parametric tests (Pallant, 2007).

To test the first hypothesis, which suggests that there is a difference in students' extrinsic motivation based on their gender, year of study, and attendance at courses, the Mann-Whitney test (Tables 2 and 3) and the Kruskal-Wallis test (Tables 4-7) were applied.

Table 2 – Mann-Whitney Test for Extrinsic Motivation by Gender

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
EMIdent	1118.00	1418.00	-2.00	.045

The Mann-Whitney test results for extrinsic motivation for identification indicate that there is a statistically significant difference between genders ($p = .045$). Therefore, the null hypothesis is rejected, and it can be concluded that there are gender differences in extrinsic motivation for identification. However, for extrinsic motivation for regulation and introjection, no statistical significance was found, and thus the null hypothesis is retained for these two aspects of extrinsic motivation. This suggests that gender does not significantly influence these two forms of extrinsic motivation in the studied sample.

Table 3 – Mean Ranks for Differences in Extrinsic Motivation for Identification by Gender

		N	Mean Rank	Sum of Ranks
EMIdent	Female	24	59.08	1418.00
	Male	125	78.06	9757.00
	Total	149		

The analysis of the mean ranks for extrinsic motivation for identification reveals that male respondents report a significantly higher mean rank (78.06) compared to female respondents (59.08). This suggests that extrinsic motivation for identification is significantly higher among male students, highlighting a gender-based difference in this type of extrinsic motivation. This result supports the conclusion that gender plays a role in the level of extrinsic motivation for identification, with males showing stronger motivation in this regard.

Table 4 –Kruskal-Wallis Test for Differences in Extrinsic Motivation for Regulation by Year of Study

	EMReg
Chi-Square	6.94
df	2
Asymp. Sig.	.031

The Kruskal-Wallis test results indicate a statistically significant difference in extrinsic motivation for regulation across the three years of study ($p = .031$). This suggests that students' extrinsic motivation for regulation varies depending on the year of study. Therefore, we reject the null hypothesis and conclude that there are significant differences in extrinsic motivation for regulation across academic years. However, for extrinsic motivation for introjection and extrinsic motivation for internalization, no statistically significant differences were found, as the p -values

were above the significance level ($p > .05$). Thus, the null hypothesis is retained for these two types of extrinsic motivation, indicating no significant differences based on the year of study.

Table 5 – Mean Ranks for Differences in Extrinsic Motivation for Regulation by Year of Study

		N	Mean Rank
EMReg	First Year (I)	82	66.88
	Second Year (II)	47	82.66
	Third Year (III)	20	90.28
	Total	149	

The analysis of the mean ranks for extrinsic motivation for regulation by year of study indicates that students in their third year (III) report a significantly higher mean rank (90.28) compared to students in their second year (II) (82.66) and first year (I) (66.88). This suggests that extrinsic motivation for regulation is notably higher among students in their final year, highlighting that students with more academic experience may have a stronger drive to regulate their academic behaviours.

Table 6 – Kruskal-Wallis Test for Differences in Extrinsic Motivation for Regulation by Level of Attendance

	EMReg
Chi-Square	8.83
df	2
Asymp. Sig.	.012

Based on the results obtained from the Kruskal-Wallis test, it can be concluded that there is a significant difference regarding extrinsic motivation for regulation depending on the level of attendance at courses. Specifically, for extrinsic motivation for regulation, $p = .012$, this indicates that there are significant differences between groups with different levels of attendance at classes. Additionally, for extrinsic motivation for introjection and extrinsic motivation for internalization, no significant differences were found ($p > .05$), and the null hypothesis was maintained.

Table 7 – Mean Ranks for Differences in Extrinsic Motivation for Regulation Based on Attendance Levels

		N	Mean Rank
EMReg	High attendance	83	78.35
	Moderate attendance	45	80.81
	Low attendance	21	49.31
	Total	149	

The analysis of the mean ranks for the differences in extrinsic motivation for regulation based on attendance levels indicates that respondents with many absences report a lower mean (49.31) compared to those with few absences (78.35) or with a moderate number of absences (80.81). This concludes that extrinsic motivation for regulation is significantly lower among respondents with reduced attendance at courses.

For testing the second hypothesis, which assumes that there is a difference in students' intrinsic motivation reflected by their activity during classes and the completion of assignments and projects, the Kruskal-Wallis test was applied (tables 8-11).

Table 8 – Kruskal-Wallis Test for Differences in Intrinsic Motivation for Achievement Based on Class Activity.

	IMAch
Chi-Square	6.69
df	2
Asymp. Sig.	.035

When examining the differences in intrinsic motivation based on students' class activity, the results of the Kruskal-Wallis test show statistical significance ($p = .035$). Therefore, the null hypothesis is rejected, and it is concluded that there are differences in intrinsic motivation for achievement depending on the level of class activity. For intrinsic motivation for knowledge and intrinsic motivation for stimulation, no statistical significance was found ($p > .05$), and thus the null hypothesis is retained.

Table no. 9 – Rank Means for Differences in Intrinsic Motivation for Achievement Based on Class Activity

		N	Mean Rank
IMAch	Low Class Activity	28	62.14
	Medium Class Activity	66	71.20
	High Class Activity	55	86.11
	Total	149	

The analysis of the rank means for the differences in intrinsic motivation for achievement based on the level of activity in class indicates that respondents with high activity report a higher average (86.11) compared to respondents with low activity (62.14) or moderate activity (71.20). This concludes that intrinsic motivation for achievement is significantly higher among respondents with high activity in classes and seminars.

Table no. 10 – Kruskal-Wallis Test for the Differences in Intrinsic Motivation for Achievement and Stimulation Based on How Assignments and Projects are Completed

	IMAch	IMStim
Chi-Square	7.92	7.83
df	2	2
Asymp. Sig.	.019	.020

When examining the differences in intrinsic motivation based on how assignments and projects are completed, the results of the Kruskal-Wallis test indicate that there is statistical significance ($p = .019$ and $p = .020$), therefore the null hypothesis is rejected, and it is accepted that there are differences in both intrinsic motivation for achievement and intrinsic motivation for stimulation based on how students complete their assignments and projects. For intrinsic motivation for knowledge, no statistical significance was obtained ($p > .05$), and thus the null hypothesis is retained.

Table no. 11 – Rank Mean Differences for Intrinsic Motivation for Achievement and Stimulation Based on How Assignments and Projects are Completed

		N	Mean Rank
IMAch	Assignments Done on Time	100	81.74
	Assignments Done on the Last Day	42	62.96
	Assignments Not Done at All	7	51.00
	Total	149	
IMStim	Assignments Done on Time	100	81.90
	Assignments Done on the Last Day	42	61.24
	Assignments Not Done at All	7	59.00
	Total	149	

The analysis of rank means for differences in intrinsic motivation for achievement based on the way students' complete assignments and projects indicates that respondents who complete their assignments on time report a higher mean (81.74) compared to respondents who leave assignments until the last moment (62.96) or do not complete them at all (51.00). Similarly, the analysis of rank means for differences in intrinsic motivation for stimulation based on the way students' complete assignments and projects shows that respondents who complete their assignments on time report a higher mean (81.90) compared to those who leave them until the last moment (61.24) or do not complete them at all (59.00). This concludes that both intrinsic motivation for achievement and intrinsic motivation for experience stimulation are significantly higher among students who complete their assignments and projects on time.

For testing the last hypothesis, which suggests that there is a difference in students' academic engagement depending on the intensity of active participation in courses and seminars, the Kruskal-Wallis test was applied (Tables 12 and 13).

Table 12 – Kruskal-Wallis Test for Differences in Academic Engagement Based on Class Participation

	AE
Chi-Square	9.41
df	2
Asymp. Sig.	.009

The results of the Kruskal-Wallis test indicate that there is statistical significance ($p = .009$). Therefore, the null hypothesis is rejected, and it is concluded that there are differences in academic engagement based on students' participation in class activities.

Table No. 13 – Means Ranks for Differences in Academic Engagement Based on Class Participation

		N	Mean Rank
AE	Low Class Activity	28	59.89
	Medium Class Activity	66	70.36
	High Class Activity	55	88.26
	Total	149	

The analysed mean ranks for academic engagement differences based on the level of activity in class indicate that respondents with high activity report a higher mean (88.26) compared to those with low activity (59.89) or moderate activity (70.36). This concludes that academic engagement is significantly higher among respondents with high participation in classes and seminars.

5. CONCLUSIONS

The research conducted identified certain aspects that significantly contribute to the emergence of differences in academic engagement and academic motivation. Although academic engagement was analysed alongside all the components of intrinsic motivation (intrinsic motivation for knowledge, achievement, and stimulation of experience) as well as the components of extrinsic motivation (regulation, introjection, and identification), differences were identified only in certain levels, depending on the factors identified in the academic environment that relate to students' academic engagement.

The results obtained indicate that intrinsic motivation for achievement, specifically the desire to attain high standards, is higher among students who show intense activity in courses and seminars, as well as those who complete their assignments on time. On the other hand, intrinsic motivation for stimulation of experience, characterized by enthusiasm and the enjoyment of positive feelings from engaging in new activities, is higher among students who complete their assignments and projects on time.

Regarding extrinsic motivation for regulation, characterized by obtaining rewards, the results indicated that it is at a higher level among students with few absences and those in their final year of study. Additionally, the study concludes that male students are more likely to exhibit extrinsic motivation for identification, meaning they value behaviors and actions performed based on personal choices.

Lastly, another important conclusion of the research is that academic engagement is significantly related to students' activity in courses and seminars, being at a high level for students with intense involvement.

The conclusions of the study provide an overall view of factors that influence both academic engagement and student motivation. These results can be practically applied in the academic environment by creating informative modules that offer the necessary elements to properly motivate students, optimizing their academic engagement and achieving superior academic performance.

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JOB ATTITUDE OF WORKING WOMEN IN RELATION TO REPRODUCTIVE HEALTH PROBLEMS

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Abstract

The main objective of the present study was to examine the relationship between reproductive health problems and the job attitude of female workers in the garment industry in Dhaka city, Bangladesh. 100 female workers with medical cards were purposively sampled as respondent. The study employed the Reproductive Health Related Check List by Naz (2017) and expert physicians, as well as the Job Involvement Scale by Lodahl & Kejnar (1965), Organisational Commitment Scale by Mooday, Steer & Porter (1979), and Job Satisfaction Scale by Brayfield-Rothe (1951) as data gathering tools. The findings revealed that reproductive health problems were the strongest predictor of job attitude, explaining 14.5% of the variance in job involvement. Expressly, an unstandardised B coefficient of 1.25 and standardised beta value (β) of 0.381 indicated that as reproductive health problems increased by one standard deviation, job involvement increased by 0.381 standard deviations. Furthermore, the ANOVA confirmed that reproductive health problems were statistically significant in predicting job attitude. These findings have important implications for policies and programs aimed at improving the reproductive health and job attitudes of female workers in the garment industry.

Keywords: Female Worker, Job Attitude, & Reproductive Health,

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1. INTRODUCTION

With time, the number and demand of working women in Bangladesh are increasing! Women no more want to depend on others financially, as financial independence brings self-honour, self-confidence, and self-identity (Mili, 2010). In Bangladesh, women are traditionally expected to be homemakers and take care of the household chores and their children. However, nowadays, many women manage their household and professional work simultaneously. A few years ago, work options were limited to teaching, but the scenario has changed now. Women are working as bankers, telecom professionals, and lecturers and also running their own ventures successfully.

The term "women's work" may indicate a role involving children, as women are biologically capable of bringing a new life. This may also refer to professions that involve certain functions, such as midwifery and wet nursing, or roles related to raising children, particularly within the home: diaper changing and related hygiene, toilet training, bathing, clothing, and education with regard to personal care. Therefore it can refer to professions such as teacher (up to puberty), governess, nanny, daycare worker. "Women's work" may also refer to roles related to housekeeping, such as cooking, sewing, ironing, and cleaning. Although much of "women's work" is indoors, some involve going outdoors, such as fetching water, grocery shopping, food foraging, and gardening (Wikipedia, 2014).

Working conditions in Bangladesh's garment sector:

The garment sector is the largest employer of women in Bangladesh (Ahmed, 2004) and provides employment opportunities to women from rural areas who previously did not have any opportunity to be part of the formal workforce. This has helped them to be financially independent and have a voice in the family (BGMEA, 2010). However, women workers face many problems and are paid far less than men due to their lack of education (Kabeer & Mahmud, 2004). Most come from low-income families, and their compliance has enabled the industry to compete with the world market. Women are reluctant to unionise because factory owners threaten to fire them (Ahmed, 2004).

Although trade unionisation is banned inside the Export Processing Zones (EPZ), the working environment is better than most garment factories operating outside the EPZs. Nevertheless, pressure from buyers to abide by labour codes has enabled factories to maintain satisfactory working conditions (BGMEA, 2010). Garment workers have protested against their low wages. Protests by workers, which began in 2006, have continued periodically since then, prompting the government to increase minimum wages (BGMEA, 2010). This has forced the government to increase workers' minimum wages (Kabeer & Mahmud, 2004). However, even

though having a baby is a human right, female garment workers are reluctant to exercise their rights because they fear of losing their jobs. According to Paul-Majumder (1998), the rate of miscarriage among garment workers is alarmingly high, and most experienced abortions more than once. In response, BGMEA has been implementing health education awareness and training programs since 1998, and UNFPA has already provided family welfare and reproductive health education services to more than 0.1 million workers (Mahtab, 2003). Despite these efforts, the current state of the garments industry and workers' rights, particularly on reproductive health issues, requires urgent attention. Few previous surveys have also highlighted similar concerns (Mahtab, 2003 & Paul-Mojumder, 1998).

Women's Health:

A comprehensive understanding of women's health requires a broad definition considering their role and position in society, particularly within the family institution. Health professionals in the Asia-Pacafic region have adopted such an approach, recognising that the roots of disease and health hazards lie in society's social and economic structures. Women will continue to suffer as long as these socioeconomic structures remain unchanged. Unfortunately, the state of women's health in this region is poor. In this study, an attempt has been made to find and determine the significant factors influencing's health. The factors are economic, demographic, cultural, political, environmental etc. While these factors affect the health of everyone, they have particularly significant repercussions for women in terms of biological, demographic, community, political and environmental factors.

Reproductive Health:

According to the World Health Organization's (WHO) definition, health is not merely the absence of disease or infirmity but a complete physical, mental and social well-being. Reproductive health, or sexual hygiene, addresses the reproductive processes, functions and systems at all stages of life (WHO, 2008_a).

Reproductive Health Services:

In Bangladesh, many healthcare professionals provide contraceptive and reproductive health services to women and men. These services are offered in various settings, including private practice offices, NGO clinics, SHOUJAR HASHI Clinics, publicly funded family planning, private clinics, Union based health centres, and private hospitals. Along with medical care, these facilities may also offer counselling or education related to sexual and reproductive family health. However, individuals do face inequalities in reproductive health services.

Reproductive Health-Related Problems:

Common reproductive health-related problems that people face on a daily basis include vulvovaginitis, abortion, sexually transmitted diseases, endometriosis, uterine fibroids, gynecologic cancer, polycystic ovary syndrome (PCOS), sexual violence, maternal death and disability, pregnancy-related problems (CDC, 2018). To address these issues, there is a need to strengthen the health and education systems and ensure the availability of essential health supplies such as contraceptives and medicines.

Job Attitudes:

Job attitudes are evaluations of one's job that express one's feelings and beliefs. It also implies the attachment one experiences with current job. This definition encompasses the cognitive and affective components of these evaluations while recognising that these cognitive and emotional aspects need not be in exact correspondence with one another (Schleicher, Watt, & Greguras 2004). In this definition, we consider "job" a broad term that encompasses one's current position (visible), one's work or one's occupation (less obvious), and one's employer (less prominent still). One's attitudes toward one's work need not be isomorphic with one's attitudes toward one's employer, which often diverges. One's behaviour at work often depends on how he or she feels about being there. Therefore, understanding how people behave depends on understanding their job attitudes. Three particular job attitudes have the highest potential to influence people's behaviour at work. These are organisational commitment, job involvement and job satisfaction. Employees can use their full potential if they have organisational commitment, job involvement, and job satisfaction, as job performance is influenced by these factors (Muhammad & Haque, 2012).

Three Potential Job Attitudes:

First, *Organizational commitment* refers to the degree of psychological identification and attachment an individual has with their work organisation (Schultz & Schultz, 1998). It also reflects a person's level of involvement and identification with a particular organisation. Second, *job Involvement* is the degree to which a person perceives his whole work situation as an essential part of his life and identity because of the opportunity it offers to satisfy his critical needs. It relates to work motivation (Bashaw & Grant, 1994; Hackett, Lapierre & Hausdorf, 2001; McElroy, Morrow, Crum, & Dooley, 1995; Blau & Boal, 1987). Thirdly, *Job satisfaction* is a positive attitude or pleasurable emotional state resulting from the appraisal of one's job as fulfilling one's essential job values, providing these values are compatible with one's needs (Locke, 1976). Finally, satisfaction in supervision refers to the satisfaction or favourable attitude towards the supervisor's behaviour which

improves job satisfaction. It is said that job involvement is positively correlated with job performance (Muhammad & Haque, 2012).

The rationale of the study:

The garment industry is the backbone of Bangladesh's economy and plays a significant role in the socioeconomic well-being of many people (Sikder, Sarkar & Sadeka, 2014). It is the most significant contributor to Bangladesh's export earnings, with over 5100 garment factories employing over three million people, of which 85% are women. In the 2010 - 2011 financial year, the garment sector accounted for 78.15 per cent of the total income (Ahmed & Raihan, 2014). Working women must be physically fit to do their assigned work, but women nowadays suffer from various physical diseases. One of them is reproductive health-related problems which decrease dedication, involvement, and satisfaction; it increases lateness, absenteeism, and turnover toward the job (Trier, 1954; Zinth & Kerr, 1951). Consequently, the ultimate goals of garments can be interrupted. A few findings were found on reproductive health issues and job attitudes. However, there are no research findings regarding the reproductive health problems of working women and their job attitudes both in Bangladesh and other countries. Therefore the present study focuses on this considering its theoretical and practical importance. This can be helpful for other researchers, managing directors, and CEOs because they will be able to know how much reproductive health problems affect women's job attitudes negatively.

Research Question:

What type of relationship exists between reproductive health and job attitude?

2. OBJECTIVE

2.1. OBJECTIVE

The main objective of the present study was to investigate the relationship of reproductive health problems with work attitudes among working women. The specific objectives are to –

- i. investigate whether there is any relationship between reproductive health problems and organisational commitment.
- ii. investigate whether there is any relationship between reproductive health problems and job involvement.
- iii. investigate whether there is any relationship between reproductive health problems and job satisfaction.

3. METHOD

3.1 The participants

The target population of this study was the female workers of the garments factory situated in Dhaka city of Bangladesh.

3.2 Sample and Sampling Technique

A total of 100 female workers who have medical cards were selected following the purposive sampling method. The age range of the respondents was 18 to 40. Data were collected from different garment factories such as SS Garment, TSR Apperals and Samad Sweater, Dhaka. All respondents do their assigned work 8 hours per day without overtime. Their demographic details were recorded by PIF form.

3.3 The instruments

“The demographic data” of the respondents were recorded in PIF.

“Reproductive Health-related Problems Checklist” was prepared by Naz (2017) with the help of expert reproductive health physicians. The lowest and highest score is 1 and 20, respectively. A higher score indicates more reproductive health problems.

“Organisational Commitment Scale” was developed initially by Moody, Steer and Porter (1979) to measure the corporate commitment of the employees. It is 15 item scale. It contains 8 positive and 7 negative items. The questionnaire is graded on a seven-point Likert scale (1: strongly disagree to 7: strongly agree). For negative items, scoring was in inverse order. The sum of the items' scores was the scale's total score for an individual. High ratings indicate high organisational commitment. The test rest reliability of the Bengali version of the organizational commitment scale (Muhammad, 2012) was found significant ($r=.85$); and high Cronbach's Alpha = .86 indicates high internal consistency of the scale.

“Job Involvement Questionnaire” was developed by Lodhal and Kejner in 1965 to measure the employees' job involvement. It is a six-item scale, contains 5 positive and 1 negative item and is assessed on a five-point Likert scale (1: strongly disagree to 5: strongly agree ; for negative item scoring was in inverse order). The sum of scores indicates high job involvement. The test-retest and split-half reliabilities of the Bangla version of the job involvement scale (Muhammad & Hauque, 2012) were found significant ($r=.85$, $r=.81$).

“Job Satisfaction Questionnaire” To measure job satisfaction, the Bangla version of eighteen items Brayfield-Rothe job satisfaction scale was used. This scale contains nine affirmatives and nine negative items and is assessed on a five-point Likert scale (1: strongly disagree to 5: strongly agree; for the negative item, scoring was in inverse order). The sum of the scores of all items was the scale's total score for an individual. A high score indicates more satisfaction with the job. The reliability and validity of this score are very high. The value of reliability and validity of the Job satisfaction scale are .87 and .93, respectively.

3.2 Procedure

For collecting proper information from participants, permission was taken from the concerned authority for data collection. After establishing rapport with participants, the researcher expressed the study's objectives and assured the confidentiality of the responses. Then, the respondents were requested to fill up personal information blank; after that, the booklet of the Bengali versions of the three scales were given to them. After respondents went through the instructions given on the front page of the booklet, were advised to start the task. At last the inventory booklet was collected from the respondents and respondents were thanked for their cooperation in the study. A total of three months was required for data collection.

3.3 The design

A cross-sectional survey design was used for the present study. All data were collected at a single point in time.

4. RESULTS

To analyze the data Pearson correlation and simple regression for each dependent variable were used for the obtained scores. The obtained results are presented in the table.

Table 1 Mean and Standard Deviation of Reproductive Health, Organizational Commitment, Job Involvement, Job Satisfaction

Variable	Mean	Standard Deviation
Reproductive Health	2.54	.98
Organizational Commitment	54.62	7.76
Job Involvement	13.97	3.21
Job Satisfaction	53.29	6.78

Table 1 represents the means and standard deviations of the present study variables.

Table 2 Correlation Matrix among Reproductive Health and Organizational Commitment, Job Involvement, and Job Satisfaction

Variables	1	2	3	4
1.Reproductive Health	-			
2.Organizational Commitment	-.072	-		
3.Job Involvement	.381**	.019	-	
4.Job Satisfaction	.057	-.137	.026	-

**p< .01 & *p < .05

The correlation matrix of table-2, indicates that reproductive health problems has the significant positive correlation with job involvement [$r = .381, p < .01$] and there is no significant relation with job satisfaction. There is no correlation exists between reproductive health problems and organizational commitment. Again, results show no significant correlation among organisational commitment, job involvement and job satisfaction.

Table 3 Selected Statistics from Regression of Job Involvement on Reproductive Health

Variables	R	R ²	R ² change	p
Predictor Variable : RH	.381	.145	.145	.001
Dependent Variable: JI				

Results of Table 3 indicate that the strongest predictor was reproductive health problems which alone explained 14.5% variance in job involvement.

Table 4 Simple Regression of Job Involvement On Reproductive Health

Model	Unstandardized		Standardized		p
	Coefficients	Coefficients			
	B	Std. Error	Beta	t	
(Constant)	10.793	.834		12.934	.001
RH	1.251	.307	.381	4.077	.002

Dependent variable: JI

The results presented in table-4 suggest that unstandardized B is 1.25. This indicates, when reproductive health problems increase by one unit, job involvement increases by 1.25 units. This interpretation is valid only if the effects of other variables are held constant. The value of standardized beta ($\beta=.381$) indicates that as reproductive health problem increases by one standard deviation, job involvement increase by .381 standard deviations.

Table 5 The Overall F-Test for Regression of Job Involvement on Reproductive Health

Sum of variations	SS	df	MS	F	P
Regression	148.363	1	148.363	16.625	.001
Residual	874.547	98	8.924		
Total	1022.910	99			

From table 5, it can be said that reproductive health is a good predictor of job involvement. This result fits the model. It is also said that ANOVA tells us reproductive health is statistically significant.

5. DISCUSSION

The first objective was to investigate whether there was a significant relationship between reproductive health and organisational commitment. The results reported in Table 2 indicated that there was no significant correlation between reproductive health and organisational commitment. Typically, commitment arises when workers feel emotionally attached to their garment industry and wish to remain employed there. However, excessive workloads often impede their emotional attachment, and workers remain in their jobs primarily for salary or because alternative employment opportunities are limited, as previously noted by Mayer,

Allen, and Smith (1993). Previous research has also suggested that females exhibit high normative and overall commitment (Marsden, Kalleberg & Cook 1993; Khalili & Asmawi, 2012). The workplace environment often provides social interaction opportunities for many workers (Biggio & Cortese, 2013), including female workers who may lack education regarding reproductive health issues, all of which may affect the relationship between organizational commitment and reproductive health problems.

The second objective of this study was to investigate whether there is a relationship between reproductive health problems and job involvement. The results reported in Table 2 indicate a significant positive relationship between reproductive health and job involvement. The standardized beta (table 4) also shows a positive correlation between reproductive health and job involvement. The findings reveal that reproductive health is the best predictor of job involvement, which explains 14.5% of the variance in job involvement. Previous research has found no relation between work involvement and motherhood experiences. However, paid employment has psychological importance for many mothers of infants (Pistrang, 1984). Most of the time, reproductive health gets neglected and lack of knowledge and fear of termination can also restrain them from taking proper reproductive care. Previous research report that pressure to leave the job because of their pregnancy and withholding of maternity benefits cause stress, anxiety and hypertensive disorders of pregnancy among pregnant garment workers in Bangladesh (Akhter, Rutherford & Chu, 2017). Garment workers try to fulfil the production rate of authority by completing their assigned work with their health problems. If they cannot meet the production rate, they will suffer more, which makes them feel insecure.

The third objective was to investigate whether there is any relationship between reproductive health problems and job satisfaction. The results of table 2 indicate no significant correlation between reproductive health and job satisfaction. Despite having some level of job involvement, garment workers do not have an emotional attachment to their work due to excessive work pressure. Previous research has found that intrinsic motivation predicts job satisfaction (Raza, Akhtar, Husnain & Akhtar, 2015) and as intrinsic motivation increases, work engagement and enjoyment also increase. Additionally, workplace enjoyment can enhance job satisfaction (Masvaure & Maharaj, 2014). However, in this context, female workers mainly work in the garment to become economically independent. Furthermore, our findings suggest that female workers neglect their health conditions to meet workplace demands due to the fear of getting fired. Therefore, reproductive health condition has no significant relation to job satisfaction.

6. LIMITATION AND SUGGESTION

Although this study provides valuable insights into the relationships between reproductive health problems and work attitudes of female garment workers in Dhaka, it has some limitations. Firstly, the data was collected from a limited number of garment factories, which may not represent the entire population of female workers in the garment industry in Bangladesh. Additionally, some participants may have shown an unwillingness to cooperate, which could have affected the accuracy of the findings.

However, this limitation could be seen as an opportunity for future researchers to expand on this study by researching a more extensive and more diverse sample from different socioeconomic backgrounds and areas of Bangladesh. This would enable researchers to gather more representative data and use more sophisticated analysis methods to draw more robust conclusions.

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