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Research articles

Effect of Child Abuse on Children's Psychological Health Outcomes: An Empirical Study in Sri Lanka

PINNAWALA, PINNAWALAGE HARSHANI AVANTHIKA [a]
University of Colombo, Sri Lanka.

Abstract

Child abuse is a major issue which is associated with psychological health outcomes. These have affected individuals throughout their lifespan and place a burden on both victims and the population. However, Sri Lanka has not paid much attention in the academic literature on child abuse with negative psychological health outcomes. Thus, this research is to explore the relationship between child abuse and psychological health outcomes in Sri Lanka. It is assumed that the child abuse victims are more likely to suffer from negative psychological health outcomes than non-abused victims. The general objective is to comprehend the association between child abuse and psychological health outcomes in Sri Lanka. This qualitative research has adopted a case study method. The target population consists of 4 child abused victims in the Western province who are above 18 years old. Accidental sampling technique has been used. Interview technique has been considered as the primary source of information using an unstructured interview schedule. The analyses of data have been done using narrative analysis and have shown a significant association between child abuse and negative psychological health outcomes.

Keywords: *Child Abuse, Psychological Health Concerns, Sri Lanka*

1. INTRODUCTION

Child abuse is a huge problem which is an under recognized phenomena in the world with no social and cultural bounds (Springer, Sheridan, Kuo & Carnes, 2007; Rizvi & Najam, 2014; Kemoli & Mavindu, 2014). This can be physical, psychological, sexual, emotional, neglect/negligence, exploitation for commercial and non-commercial reasons (Paz, Jones & Byrne, 2005).

Table 1: Definitions of key words

Child Abuse	A state of emotional, physical, sexual and economic maltreatment meted out to a person below the age of 18 years (Sathiadas, Viswalingam & Vijayaratnam 2018:2)

Corresponding author: Pinnawalage Harshani Avanthika Pinnawala

E-mail address: harshanipinnawala@gmail.com

	All forms of physical or mental violence, injury and abuse, neglect or child negligent treatment, maltreatment or exploitation including sexual abuse (UN, cited in Hettiarachchi 2020:279)
Physical Child Abuse	The intentional use of physical force against a child that results in, or has the potential to result in, physical injury (Leeb, Lewis & Zolotor 2011:455)
Psychological Child Abuse	The intentional caregiver behavior that conveys to a child that he/she is worthless. Flawed, unloved, unwanted, endangered or valued only in meeting another's needs (Leeb, Lewis & Zolotor 2011:455)
Sexual Child Abuse	Any completed or attempted/non-completed sexual act, sexual contact with, or exploitation of a child (Leeb, Lewis & Zolotor 2011:455)
Emotional Child Abuse	Any act including, confinement, isolation, verbal assault, humiliation, intimidation, infantilization or any other treatment which may diminish the sense of identity, dignity and self-worth (Tracy 2012)
Neglect/ Negligence	The failure to provide for a child's basic physical, emotional or educational needs or to protect a child from harm or potential harm (Leeb, Lewis & Zolotor 2011:455)

Child abuse cases in Sri Lanka have been increased due to economic matters – parents leaving for overseas employment, internal migration – parents' behaviours, lack of support from extended families, social and environmental factors (Women's Education and Research Centre, 2016). Sri Lankan health sector has recognized child abuse as the major issue in developing psychological health outcomes (Rodrigo & Liyanage, 2015; Rodrigo & Liyanage, 2016). Child abuse has an impact on children's health, survival issues, dignity in taking responsibilities, trust and power (Sathiadas, Viswalingam & Vijayaratnam, 2018). Most Asian parents have accepted physical punishment as a positive reinforcement (Rodrigo & Liyanage, 2015). They have unrealistic expectations on children encouraging them to show violent parenting styles. Issues at home [marital problems, financial problems and upbringing issues] have an impact on children's psychological health outcomes which increase their aggressiveness, emotional distress and adjustment problems (Nyarko, Amissah, Addai & Dedzo, 2014). Nevertheless, the magnitude and characteristics of child abuse issues have not clearly understood. Since Sri Lanka is a developing country; there is a limit in identifying and providing services to psychological health outcomes (DeSilva, 1997).

Past studies on child abuse have shown a positive relationship with deprived quality lives and poor well-being (DeSilva, 1997). Child abuse victims display changes in brain architecture, poor physical health, reduced cognitive ability, poor educational attainment, impaired psychological functioning and mental health (Leeb, Lewis & Zolotor, 2011). These outcomes can be explained under different types of abuses.

Physical child abuse is the most common type of abuse among children who are below 5 years old. Common injuries include fractures, traumatic brain injuries, bruises and subdural hematomas. Abusive head trauma, seizure disorders and learning disabilities [poor school performance] might occur due to the excessive shaking. These victims exhibit aggressive behaviours with others (Springer, Sheridan, Kuo & Carnes, 2003). They also exhibit more severe behavioural [antisocial] and emotional outcomes than children who experience other forms of abuse (Leeb, Lewis & Zolotor, 2011; Nyarko, Amissah, Addai & Dedzo, 2014).

Psychological child abuse may not cause immediate physical harm to the child but may have long-term psychological health consequences (Nyarko, Amissah, Addai & Dedzo, 2014). These victims exhibit lower self-efficacy, higher depression, lower self-esteem, poor wellbeing and increased risk of PTSD, difficulty in trusting others, relationships problems, negative self-concept, poor effectiveness in comprehending complex roles, troubled socialization with peers, identity crisis, feelings of isolation, insecure attachments, unworthy and stigma (Hettiarachchi, 2020; Leeb, Lewis & Zolotor, 2011). They are more prone to illegal drug usage, alcohol, delinquency, negative health perceptions and cognitive impairment (Rizvi & Najam, 2014).

Sexual child abuse is the most critical type of abuse which develops acute sexual trauma, Sexually Transmitted Disorders/Diseases (STDs), early pregnancy [mostly among post-pubertal girls], genital and anal injuries. These victims exhibit chronic headaches, maladaptive sexual behaviour, irritable bowel syndrome, mood disorders, anxiety disorders, conduct disorders, substance abuse disorders, borderline personality disorders, panic disorders, dissociate behaviours, social phobia, aggression, suicidal behaviours and homicide (Rizvi & Najam, 2014). This leads to suicidal thoughts and suicidality, plans, threats and attempts, and deliberate self-harm (Leeb, Lewis & Zolotor, 2011).

Emotional child abuse is mostly occurs by parents and caregivers engage in emotionally abusive behaviours towards children while taking care of them. These victims exhibit aggressiveness, impulsivity, depression, hyperactivity, school failure, inattention, disturbances of conduct, anxiety, eating disorders and somatic symptoms (Leeb, Lewis & Zolotor, 2011; Tracy 2012).

Neglect is the most common form of abuse among children in any age category. Neglect can be physical, educational, emotional or psychological (Sathiadas, Viswalingam & Vijayaratnam, 2018). Most neglected victims exhibit failure to thrive, untreated obesity, vitamin deficiencies, failure to provide food and clothing, inadequate shelter, desertion, abandonment, untreated medical conditions and injuries such as burn, overdose or poisoning due to the lack of supervision. Severe physical neglected victims during their preschool period exhibit withdrawn

behaviours and internalizing symptomatology. Victims who experience neglect prior to age 2 years, exhibit more aggressive behaviours in early and middle childhood (Leeb, Lewis & Zolotor, 2011; Nyarko, Amissah, Addai & Dedzo, 2014).

More than 40 million are abused within all cultures, ethnicities and religions at every socio-economic and educational levels in each year. Global data on child abuse is very limited (Rodrigo & Liyanage, 2015). A systematic review in 2015 on the global prevalence of child abuse has highlighted that nearly 10 million children aged 2-17 years have been victims of physical, emotional or sexual abuse or neglect. Child abuse is associated with mood disorders, anxiety disorders, conduct disorders, substance abuse disorders, suicidal behaviours, borderline personality disorder, chronic headaches, maladaptive sexual behaviour, irritable bowel syndrome, dissociative behaviour, depression, alcoholism, panic disorder, social phobia and somatic symptoms (Nyarko, Amissah, Addai & Dedzo, 2014; Springer, Sheridan, Kuo & Carnes, 2003). McCauley et al. (n.d.) have done a study on women in primary care practices and found nightmares, back pain, frequent or severe headaches, pain in the pelvic, genital or private area, eating binges or self-induced vomiting, frequent tiredness, sleeping problems, abdominal or stomach pain, vaginal discharge, breast pain, choking sensation, loss of appetite, urinating problems, diarrhoea, constipation, chest pain, face pain, frequent or serious bruises and shortness of breath with physical or sexual abuse. In a study on 7016 men and women in a community by MacMillan et al. (n.d.) have found that anxiety disorders and depressive disorders are significantly associated with physical and sexual child abuses. A study on sexual child abuse victimized adults has stated that 69% met full Diagnostic and Statistical Manual of Mental Disorders (DSM) III criteria for PTSD and 19% met partial PTSD (Nyarko, Amissah, Addai & Dedzo, 2014). Patients who suffer from depression, irritable bowel, chronic pain or substance abuse have experienced physical and sexual child abuses which is 70%. Child abuse victims die from 1-10 in every 100 children in the USA in 2008 (Leeb, Lewis & Zolotor, 2011).

The negative child abuse consequences have an impact not only on abused victims, but also have an impact in a country by increasing its costs such as healthcare, child welfare, special education and criminal justice (Hettiarachchi, 2020). This cost can be direct [includes hospitalization, chronic physical health problems, mental health care, welfare cost, law enforcement and court action] and indirect [loss of educational attainment and work productivity, burden on insurers]. A study on direct and indirect [long-term] costs of child abuse in USA was USD 104 billion in 2008 (Leeb, Lewis & Zolotor, 2011).

Sri Lanka still lacks accurate data on child abuse (DeSilva, 2000). The limited research in Sri Lanka has emphasized that sexual child abuse cases are over 6000 and among 40.7% of them were exposed from their parents. The occurrence of child

abuse has documented as 53% and sexual child abuse ranged from 23.5-27.5% in girl children (Rodrigo & Liyanage, 2015). Another study conducted among Sri Lankan students aged 18-19 years has documented the occurrence of physical child abuse is 45.4%, sexual child abuse is 9.1% and emotional child abuse is 27.9%. The same study has documented that there is a greater occurrence of sexual child abuse among female than male children which is 11.5% vs 6.4% (Hettiarachchi, 2020). Nevertheless, these statistics may differ [highly less than the actual cases] since most victims don't report due to various reasons. Child abuse has increased during the armed conflict period [due to the exposure to terror and horror lasting physical and psychological impacts] which ended in May 2009 (Sathiadas, Viswalingam & Vijayaratnam, 2018). There are immense inadequacies remain in the field of deleterious effects of child abuse and its association with psychological health outcomes. Most research focus on child abuse in terms of physical, yet paid little attention to sexual, psychological, emotional and neglect. A few studies have examined the effects of various forms of child abuse on children's psychological wellbeing. Until now, there is no attempt to have comprehensive analyses on the effect of various types of child abuses on children's negative psychological health. Most of these studies have been conducted in US countries and not in non-US countries. Thus, the findings may not be applicable owing to vast cultural differences. Additionally, most researchers have shown a narrowed interest on child abuse (Nyarko, Amissah, Addai & Dedzo, 2014). Child abuse hasn't received an importance in the medical literature (Springer, Sheridan, Kuo & Carnes, 2007, cited in Leeb, Lewis & Zolotor, 2011:464). Thus, this study is to explore the relationship between child abuse and psychological health outcomes in Sri Lanka.

2. OBJECTIVE AND HYPOTHESES
2.1 OBJECTIVE

The general objective is to comprehend the association between child abuse and psychological health outcomes in Sri Lanka. Specific objectives are; (1) to examine the severity of the child abuse in Sri Lanka, (2) to examine the level of understanding of Sri Lankans on child abuse and its impact on psychological health outcomes, (3) to identify areas of deficiencies and gaps in the child abuse prevention in Sri Lanka, and (4) to explore recommending strategies and intervention programs for the prevention of child abuse to minimize negative psychological health outcomes in Sri Lanka.

2.2 HYPOTHESES

It is assumed that the child abused victims are more likely to suffer from negative psychological health outcomes than non-abused victims.

3 METHOD

This study has adopted a qualitative research design and a case study method heavily relying on respondents' [child abuse victims] self-reports, their judgements on child abuses and parental treatments, and their own psychological feelings in terms of psychological health outcomes such as depression, anxiety, PTSD and self-esteem etc. It is very difficult to rely on retrospective accounts as valid and accurate reports of child abuse experiences, when the child abuse experiences are highly personal due to the denial, distort, unconsciously forgetful and/or painful while responding to external individuals at later years of the occurrence (Belsky, 1993; Paulhus, 1991, cited in Nyarko, Amissah, Addai & Dedzo, 2014:107). Nevertheless, this research chose to investigate the effect of child abuse from the respondents' perspective in their current situation.

The target population consisted of child abuse victims in the Western province, Sri Lanka who are under psychological health treatments [from private hospitals]. This study has adopted the accidental sampling technique which obtains the willingness to respond (Singh, 2006). The sample size is 4. It's not necessary to have a large sample due to the constraints of shortage of time, manpower and cost (Singh, 1994). The sample belong to one category – child abuse victims who were diagnosed with psychological health concerns. The respondents were above 18 years old. The study has focused on the interview technique as the primary source of information using an unstructured interview schedule. Unstructured interview schedule mostly used in the interview technique in qualitative research design, to encourage the interviewer to obtain mass information on the reasons of a problem or practice in a target group (Creswell, 2007). Respondents' demographic information was gathered including their social background. The method of analysis was narrative analysis.

4 RESULTS

This study is an effort to comprehend the relationship between child abuse and negative psychological health outcomes in Sri Lanka. Child abuse has an impact on children's development and their wellbeing in the entire lives (MacMillan et al., 2001, cited in Nyarko, Amissah, Addai & Dedzo, 2014:105-106). This results multiple long-term consequences to victims' physical and behavioural changes and societal consequences (Hettiarachchi, 2020).

Physical child abuse has a huge impact on victims. The attitudes of Asian parents are different from non-Asian parents (Sathiadas, Viswalingam & Vijayaratnam, 2018). Most parents in Sri Lanka accept medium level of physical punishment from closed family members. Behaviours and practices on child abuse by closed family members and school authorities have a major role in responding to

child abuse victims. Knowledge and attitudes on elders towards child abuse seems to be unstable. Physical child abuse is associated with poor social relationships. When victims are exposed to severe physical child abuse, they are prone to exhibit acting-of behaviours such as truancy, running away, vandalism, property offenses, physical fighting, weapon carrying and threatening with or without weapons. Behaviour disorders such as anger, aggressive and various anti-social behaviours are associated with child abuse (Leeb, Lewis & Zolotor, 2011).

> I don't like to have many people in my life. If I have many, I might fight with them more. Most people told me that I have been very violent from my childhood which is not actually very true.

Physical child abuse develops deficits in cognitive functions such as flexibility, working memory, sustained attention and inhibitory control (Pechtel & Pizzagalli, 2011, cited in Hettiarachchi, 2020:279).

> I have problems with my memory. I don't know whether it's short-term, long-term, amnesia or dementia. But, I know it's permanent.

Psychological child abuse enhances the risk of depression and anxiety in later which may be lifetime, leading to suicidal tendencies (Hettiarachchi, 2020). This is associated with agoraphobia, Obsessive-Compulsive Disorder (OCD), social phobia, sexual disorders, PTSD and suicidal attempts (Rodrigo & Liyanage, 2015).

> I was diagnosed with depression at first. But, I think it was not depression. It is anxiety disorder. And, now I am taking medicine for that.

These victims exhibit insecure attachments with outsiders which may damage the relationships (Nyarko, Amissah, Addai & Dedzo, 2014). The 1st stage of Erikson's psychosocial development – basic trust vs basic mistrust is well-expressed this phenomena (Papalia, Olds & Feldman, 2004). Early development of the insecure attachments increases the vulnerability to psychological disorders (Nyarko, Amissah, Addai & Dedzo, 2014). Psychological child abuse victims have little faith on medical service providers. Medical professionals have to pay attention to the importance of prevention, recognition, assessment and management of child abuse since this is associated with life expectancy and suicidal tendencies (Rodrigo & Liyanage, 2015; Rodrigo & Liyanage, 2016).

> I don't think my doctor understands my case. I haven't explained most things. My doctor may think that I have more psychological disorders.

Sexual child abuse often occurs by family members or people close to the family (Sathiadas, Viswalingam & Vijayaratnam, 2018). Sexual child abuse from siblings and multiple family members [both parents] are associated with recurrent depression (Kessler & Magee n.d., cited in Springer, Sheridan, Kuo & Carnes, 2003:853). Sexual refusals occur due to the exposure of sexual child abuse (Hettiarachchi, 2020). Sexual child abuse victims expose to various stereotypes and stigmatizations (Paz, Jones & Byrne, 2005; Women's Education and Research

Centre, 2016). These victims are labelled as 'unlucky', 'born in a cursed day' and 'hopeless woman' etc. Superstitious accusations are even more critical calling victims as 'bad luck'. These accusations are more common for sexual child abuse victims in developing countries. Many parents have stigmatized their psychologically affected children (Paz, Jones & Byrne, 2005). This has increased parents' paying minimal or no attention to victimized children's medical needs.

Emotional child abuse has enormous risks to its victims. These victims have emotional instabilities towards their future and lives.

> I don't trust anyone. It's very difficult to trust a person. Even if a person is
> nice to me, I feel he/she has some ulterior motives.

Emotional child abuse is highly correlated with caregivers' behaviours towards children. Children elicit instinctive nurturing responses from their caregivers. Their sensitivity responses determine the type of the secured relationship [anxious-avoidant attachment and anxious-ambivalent attachment] with children (Nyarko, Amissah, Addai & Dedzo, 2014). According to Bowlby, children's attachment to caregivers enhances children's behaviours and survival (Papalia, Olds & Feldman, 2004). Belittling behaviours by the caregivers have a huge impact of children.

> I was very afraid to everyone when I was a child. I shimmered, stammered
> and tried to hide myself most of the time from all.

Emotional child abuse has further increased due to the Sri Lankan patriarchal perspectives and other cultural pressures. As most Asian primary caretakers consider the occurrence of partial abuse as an encouragement to train children to show proper behaviour, hence parents are encouraged not to report to relevant authorities (Sathiadas, Viswalingam & Vijayaratnam, 2018). Child abuse victims have alienated even after following reporting mechanisms. Nevertheless, emotional child abuse can be reduced by comprehending the occurrence of child abuse early (Leeb, Lewis & Zolotor, 2011).

Most Sri Lankan children experience negligence from parents and the society as they are unable to provide proper safety, stable resources [food, clothes and shelter], nurturing relationships and right education etc., due to various reasons such as being duel earners, poverty and limited knowledge etc. Inability to provide proper parenting and health advises, and other services like making children to mingle with the society can also be included (Leeb, Lewis & Zolotor, 2011). As DeSilva (1997) has mentioned, unsatisfactory knowledge on child abuse, child rights, reporting mechanisms and medical services were noticeable. This has increased getting exposure to various abuses leading to develop more negative psychological health outcomes. Limited self-awareness on child abuse has decreased the improvement of the child abuse prevention. Parents'/caregivers' limited knowledge on their psychological health history has increased the aggressive behaviour towards children. Besides, children's limited knowledge on their parents'/caregivers'

negative psychological health may affect them psychologically and emotionally. Limited knowledge on referral procedures has reduced parents receiving medical services from hospitals leading them to exhibit more violent behaviours towards children (Sathiadas, Viswalingam & Vijayaratnam, 2018). Most children from such parents have suffered insufficient emotional support and neglect from their parents, especially from mothers [due to the postnatal depression] leading to affect the parent-child relationship permanently (Paz, Jones & Byrne, 2005).

Poly [multiple] victimization has encouraged child abuse victims to develop more than one negative psychological health outcome. These victims suffer from multiple health problems, severe pains, poor self-rated health, disabilities and mal-utilization of health services (Leeb, Lewis & Zolotor, 2011). Poly victimization is linked with Intimate Partner Violence (IPV) and/or battered-women syndrome.

5   CONCLUSIONS

This study has indicated a satisfactory knowledge on child abuse and its impact on negative psychological health outcomes in Sri Lanka. These are linked with various types of child abuse and can affect abused victims throughout their lifespans. Child abuse victims' unhealthy lifestyles place a substantial burden on both victims and the society. It is very necessary to provide more weight to child abuse issues in Sri Lanka.

Sri Lankan government needs to identify the severe consequences of child abuse to implement new strategies in the areas of identification, assessment [disclosure and interviewing], management and prevention [case management, re-referred families, longer in out-of-home placements, less support from protective agencies, adoption and foster care services and court reports], neglect and treatment [treatment outcomes]. A quality collaboration [establishing a multi-disciplinary team] by the state, medical professionals, legal advisers, researchers and psychologists etc., is needed as the primary prevention. Early identification of high-risk child abuse families [families engage in psychological and emotional child abuse] can be reduced by providing them counselling. Schools can enhance these facilities so that the victimized children can get the benefit. Cognitive-behavioural therapy (CBT) should be provided to the needy children. While paying heed to the Bowlby's Attachment theory (1969, 1973 & 1989), it is necessary to reconsider developing and practicing new parenting skills with their own children in home environments. Positive role modelling is needed to encourage child positive behaviour. It is also necessary to educate the public on child abuse to increase the attitudinal changes towards such victims.

Support from the society can be considered to stabilize the psychological health among child abuse victims. As to response to the difficulties face by the

state/service providers when managing victimized shelter homes, it is highly essential to reconsider the limited resources such as knowledgeable authorities and safety homes. Professional information disseminators are needed when disseminating the information of positive psychology, optimism, mind-healing techniques, meditation methods and self-awareness. Agreeing with Leeb, Lewis and Zolotor (2011), more research and innovative solutions are needed in this area. It would be pertinent to use different scales such as Child Abuse Scale, Assessing Environments III, Physical Punishment Scale, Neglect Scale, Psychological Well-being Scale, Rosenberg Self-Esteem Scale, Centre for Epidemiological Studies Depression Scale for Children (CES-DC) and Spence Children's Anxiety Scale to have accurate information. It would be pertinent to apply home-visiting models [such as Nurse-Family Partnership and Chicago-Parent Centers], Western models, computer based models, empirically-driven behavioural modification techniques and population-based screening instruments in the evaluation and prevention of child abuse sensitively to Sri Lankan society. Proper conceptual research framework for child abuse needs to introduce to prevent. Long-term observation on child abuse victims and as well as child abusers is needed to understand the negative consequences and to prevent it.

This study has several strengths and limitations such as considering only a qualitative research design, utilizing an unstructured interview schedule (hindering validity and reliability) and relying on a small sample without covering different geographical and sociocultural backgrounds.

ACKNOWLEDGMENT

REFERENCES
Creswell, J.W. (2007). *Qualitative Inquiry Research Design: Choosing among Five Approaches*: SAGE Publications.

DeSilva, H. (1997). Child Abuse in Sri Lanka. *Ceylon Journal of Child Health*, 26(1), 20-28.

DeSilva, D.G.H. (2000). Some Reflections on Child Abuse in Sri Lanka. *Sri Lanka Journal of Child Health*, 29, 104-106.

Hettiarachchi, A. (2020). Management of Victims of Child Abuse in Sri Lanka: The View of a Child Psychiatrist. *Sri Lanka Journal of Child Health*, 49(3), 279-283.

Kemoli, M. & Mavindu, M. (2014). Child Abuse: A Classic Case Report with Literature Review. *Contemporary Clinical Dentistry*, 5(2), 256-259.

Leeb, R.T., Lewis, T. & Zolotor, A.D. (2011). A Review of Physical and Mental Health Consequences of Child Abuse and Neglect and Implications for Practices. *American Journal of Lifestyle Medicine*, 5(5), 454-468.

Mapping Out a Profile of Child Protection in Sri Lanka: Questioning Public in the Western Province, (2016). Women's Education and Research Centre, Sri Lanka.

Nyarko, K., Amissah, C.M., Addai P. & Dedzo, B.Q. (2014). The Effect of Child Abuse on Children's Psychological Health. *Psychology and Behavioral Sciences*, 3(4), 105-112.

Papalia, D.E., Olds, S.W. & Feldman R.D. (2004). *Human Development*: Tata McGraw-Hill Edition.

Paz, I., Jones, D. & Byrne, G. (2005). Child Maltreatment, Child Protection and Mental Health. *Current Opinion in Psychiatry*, 18, 411-421.

Rizvi, S.F.I. & Najam, N. (2014). Parental Psychological Abuse toward Children and Mental Health Problems in Adolescence. *Pakistan Journal of Medical Sciences Online*, 30(2), 256-260.

Rodrigo, A. & Liyanage, N. (2015). Child Abuse: The Role of Psychiatrists. *Sri Lanka Journal of Psychiatry*, 6(2), 1-2.

Rodrigo, A. & Liyanage, N. (2016). Media Portrayal of Child Abuse in Sri Lanka and the Impact of Two Incidents of Child Abuse on Media Coverage. *Sri Lanka Journal of Psychiatry*, 3-7.

Sathiadas, M.G., Viswalingam, A. & Vijayaratnam, K. (2018). Child Abuse and Neglect in the Jaffna District of Sri Lanka: A Study on Knowledge Attitude Practices and Behavior of Health Care Professionals. *Journal of BNC Pediatrics*. 1-7.

Singh, A.K. (2006). *Test, Measurements and Research Methods in Behavioral Sciences*: Bharati Bhawan Publishers.

Singh, J. (1994). Introduction to Methods of Social Research: Sterling Publishers.

Springer, K.W., Sheridan, J., Kuo, D. and Carnes, M. (2003). The Long-Term Health Outcomes of Child Abuse. *Journal of General Internal Medicine*, 18(10), 846-870.

Springer, K.W., Sheridan, J., Kuo, D. & Carnes, M. (2007). Long-Term Physical and Mental Health Consequences of Childhood Physical Abuse: Results from a Large Population-based Sample of Men and Women. *Child Abuse Negligence*, 31(5), 517-530.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4067796/ (Retrieved June 01, 2021)

https://www.healthyplace.com/abuse/emotional-psychological-abuse/emotional-abuse-definitions-signs-symptoms-examples (Retrieved June 19, 2021)

PERCEPTION OF THE OVERLAP OF THE PRESENT SELF WITH THE FUTURE SELF AND SELF-ESTEEM

DAN, VASILIU [a], MIRCEA, BRATU [b]

[a] *Ion Creangă Pedagogical State University, Chisinau, Republic of Moldova*
[b] *National University of Physical Education and Sports*

Abstract

The present research aimed to highlight the relationships between self-esteem and the overlap between the present and future selves as well as gender differences in the evaluation of these constructs. Self-esteem is defined by Rosenberg (1965) as a global evaluation of oneself. The actual self is the product of one's experiences in the society and culture to which a person belongs. The future self is the level of expectation of one's own becoming. The representative sample comprised 96 participants, aged between 18 and 52, of whom 32 (33.3%) were male and 64 (66.7%) female. The data was collected during 2019. Statistical processing found significant positive associations between self-esteem and the overlap between the current and future selves (p=0.001) with a moderate effect size (r=0.442). No statistically significant differences were found in the assessment of the constructs analysed by gender. Explanations were based on the biunivocal nature of some characteristics of the two constructs and the influence of the social paradigm on psychological variables.

Keywords: self-esteem, current self, future self

1. INTRODUCTION

The ability to produce representations of the self and the world, stored in memory, has important consequences for learning, motivational processes and behaviours (Bandura, 1977). The representations also include the perspective of the future. Self-representations, observed through the lens of future actions, can enhance or inhibit behaviours and influence the exercise of perceived or latent skills.

The concept of Self was inspired by psychoanalysis, the ego psychology developed by Heinz Hartmann (1939) and the psychology of the self, Heinz Kohut (1971). The actual self is the product of one's experiences in the society and culture

Corresponding author: Dan Vasiliu
E-mail address: danvasiliu@danvasiliu.ro

to which a person belongs. The actual self includes: the physical self, which is what I think about my body, including body image and sexual identity; the cognitive self, which is what I think about how I think, store and process information about the self and the world in my mind; the emotional self, which is how I perceive my own affects, feelings and emotions; the social self, how we feel perceived by those around us; and the spiritual self, which is about the values and important things in our lives. It distinguishes the "ideal self" which represents the level of aspiration, the level a person would like to reach in the more or less distant future. Excessive focus on the differences between the actual and ideal self can lead to feelings of frustration, sadness, depression or dissatisfaction with oneself. The future self is the level of expectation of one's own becoming. Expectations include aspirations and goals, on medium or long term, that we nurture. It acts as a significant force on the motivations behind our behaviours.

Hal Ersner-Hershfield, M. Tess Garton, Kacey Ballard, Gregory R. Samanez-Larkin, and Brian Knutson (2009) have shown that we are different, in terms of the feelings we experience, when we relate to the future self. Brain activity changes depending on how well we correlate our current image with our future one.

Self-esteem is defined by Rosenberg (1965) as a global evaluation of oneself. Depending on how one evaluates oneself, favorably or negatively, a person can feel good or bad. Awareness of one's own value is achieved by relating to others. Self-esteem is a construct with cognitive characteristics of self-protection and self-reinforcement. Negative self-beliefs can prevent further disappointments. This minimizes the impact of failures. High self-esteem correlates with expectations for success. In this case, the person shows increased optimism about future performance. There is a proactive attitude towards achieving the goal and perseverance in activities aimed at overcoming obstacles. The studies conducted by Tafarodi and Milne (2002), Robu (2013) and Vasiliu (2019), have shown a bifactorial structure of self-esteem.

2. **OBJECTIVE AND HYPOTHESES**

2.1. OBJECTIVES

The research aimed to highlight the relationships between the overlap of the current and future self and self-esteem and their characteristics by age and gender category.

2.2. HYPOTHESES

H1: There are statistically significant relationships between the perception of overlap between current and future self and self-esteem.

H2: There are statistically significant gender differences in the perception of overlap between current and future self and in the level of self-esteem.

3. METHOD

The research was conducted on a representative sample of 96 participants, aged between 18 and 52 years, of whom 32 (33.3%) were male and 64 (66.7%) female. The data was collected during 2019. Self-esteem was assessed by Rosenberg's (1965) 10-item questionnaire, validated and rescaled for the Romanian population (Vasiliu, 2019).

The perception of overlap between the current self and the future *self (Self* overlap) was rated by the participants on a six-step scale where the first step represents no overlap, the second slight overlap, the third below average overlap, the fourth above average overlap, the fifth strong overlap and the last step total overlap between the two constructs. In order to better understand the meaning of each step of the scale, they were accompanied by a graphic representation - two circles, one associated with the current self and one with the future self, with different degrees of overlap. The data collection from the research participants resulted in the distribution shown in Figure 1.
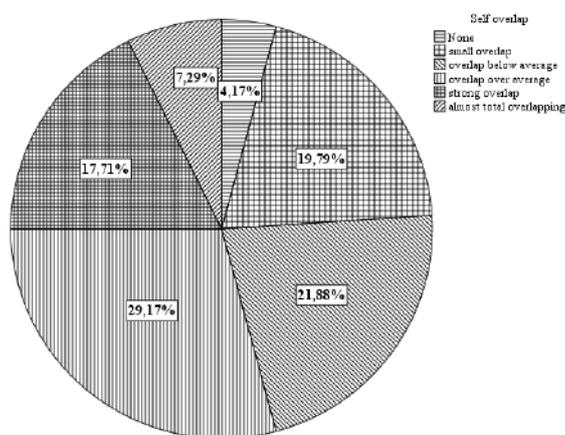
Figure 1. Distribution of the overlap between the present and future self

The method of completing the questionnaires, following instruction, was pencil and paper with no time limit. Participants were informed that the study is to be conducted in compliance with Articles 7, 8, 10 and 11 of the Code of Ethics of the profession of psychologist with the right to practice, adopted by Resolution 4CN/2013 of the Romanian College of Psychologists, as well as the provisions of Annex 2, Part 1: Preamble of the Code of Disciplinary Procedure (COPSI, 2013).

Participants were informed of the objectives and explained the content of the evidence used and that participation is voluntary, with respect for the confidentiality of personal data and evaluation results. At the same time they were informed that they can withdraw from the research at any time without any negative repercussions for them.

Statistical analyses were performed with *PSPP* software and 95% confidence intervals were calculated with the *Practical Meta-Analysis Effect Size Calculator*.

The research followed a non-experimental ex-post-facto design of the observational type, which allowed the study of the participants' current behaviour (Vasiliu, 2018, p.21)

$$N: \quad O_1 \quad O_2$$

where O_1 is the assessment of self-esteem with the Rosenberg questionnaire and O_2 is the assessment of the overlap between the current self and the future self.

4. RESULTS

Participants answered all items. The data collected fall within the minimum and maximum values assumed by each questionnaire. The Kolmogorov-Smirnov normality test (Table 1) showed that the distribution of the *self-esteem* variable was non-parametric (p=0.001). Non-parametric statistical tests were chosen.

Table 1. Normality test for the variable self-esteem

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistical	df	Sig.	Statistical	df	Sig.
Self-esteem	, 145	96	, 000	, 911	96	, 000

a. Lilliefors Significance Correction

Box-Plot analysis showed that the scale-type distribution, self-esteem, contains no outliers (Fig. 2). The variables *Self overlap* and *Gender* are categorical.
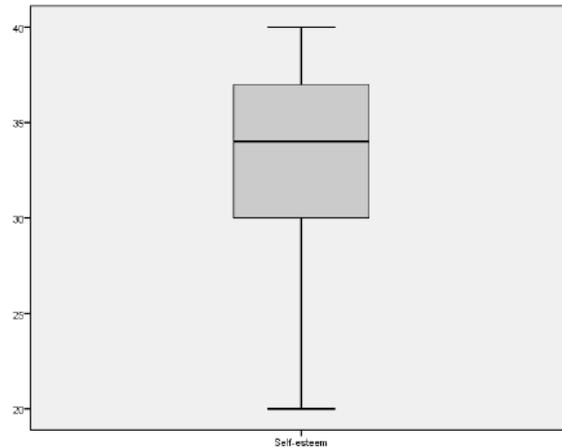
Figure 2. Box-Plot analysis for the distribution of self-esteem

Kendall's tau_b statistical test was applied to test the first null hypothesis. We found statistically significant associations ($K\tau=0.442$, $p=0.001$, 95%CI= 0.265 - 0.5902) between self-esteem and the overlap of current self and future self (Table 2). The effect size ($r=0.442$) is moderate for a statistical power of 95%, which means that the effect seems to be quite important from a practical point of view (Vasiliu, 2018, pp. 102-103). We rejected the null hypothesis.

Table 2. The association between self-esteem and the superimposition of the present and future self

	1.	2.
1. Self		,442**
		, 000
2. Self-esteem	,442**	
	, 000	

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

The association relationship is positive, which means that a perception of a strong overlap between the present self and the future self implies high self-esteem. On the one hand, strong self-esteem leads to positive expectations of success. The person shows increased optimism about future performance based on present capabilities. On the contrary, low esteem leads to uncertainty about the future. The person refuses to explore the future for fear of failure. On the other hand, a strong overlap between the current and future self helps to set realistic and achievable goals. The person can set strategies, based on current skills and resources, so that achieving the goal is as easy as possible. The perception of small successes leads to a

strengthening of self-esteem. Studies supporting these findings have been conducted by Carver & Scheier (1982), Chraif & Rizeanu (2021), Cosmoiu & Rizeanu (2020), Gergen, Gergen & Meter (1972), Greenwald & Pratkanis (1984), Higgins (1989), Kihlstrom & Cantor (1984), McGuire & McGuire (1988), Nurra & Oyserman (2018), Vasiliu (2019a).

The Mann-Whitney U statistical test was used to test the second null hypothesis. The mean ranks for self-esteem and the overlap between current and future self are shown in Table 3.

Table 3. Rank averages for self-esteem and the overlap of current self and future self

	Gender	N	Mean Rank	Sum of Ranks
	male	32	51.53	1649.00
Self	female	64	46.98	3007.00
	Total	96		
	male	32	52.22	1671.00
Self-esteem	female	64	46.64	2985.00
	Total	96		

We found no statistically significant differences between the mean ranks of self-esteem or perception of overlap between current and future self (Table 4) between male and female participants (p>0.05).

Table 4. Comparison of mean ranks, by gender, for self-esteem and overlap of current self with future self

	Self	Self-esteem
Mann-Whitney U	927.000	905.000
Wilcoxon W	3007.000	2985.000
Z	-,773	-,927
Asymp. Sig. (2-tailed)	, 439	, 354

a. Grouping Variable: Gender

For this statistical test the effect size was calculated with the formula $r=z/\sqrt{N}$ (Pallant, 2007, p. 225). For self-esteem r=0.09 and for perception of overlap r=0.08. The effect size is small so it appears that the null hypothesis is supported, there is no statistically or practically significant effect (Vasiliu, 2018, p. 103). We have retained the null hypothesis.

Social development has changed many of the paradigms of the past. The fluidity of occupations, of gender-specific activities, the tendency to equalize

attitudes and behaviours, have led to a blurring or even cancellation of psychological differences between people, of how they make choices or set goals. The choice of coping type does not correlate with gender, but rather with perceived abilities, with assigned meanings (Kreitler, Kreitler, 1993). Gender differences in performance or performance skills have been found to diminish or not exist (Gneezy, Niederle, Rustichini, 2003, Feingold, 1988, Feng, Spence, Pratt, 2007, Feingold, 1994, Shulman, Ben-Artzi, 2003). A person will exhibit a certain behaviour based on expectations, planning and prediction. Personal variables are seen both as a product of learning and as a flexible process of response adaptation to context (Rotter, 1982, Bandura, 1986). The attribution of male and female behaviours is due to roles rather than as a consequence of specific traits in traditional cultures. In modern society there is an increasing emphasis on equal opportunities without gender or strict role limitations. The debut of this way of thinking, in the Romanian space, appears in 1815 and develops together with the trends in other European countries (Mihăilescu, 2001).

5. CONCLUSIONS

The results obtained from the research allow us to draw the following conclusions:

1. There is a positive, statistically significant, medium effect size relationship between self-esteem and perceived overlap between the current self and the future self. Previous research anticipates such a relationship given the bi-univocal nature of some of the features involved in modelling the constructs studied. A strong overlap between the current and future self requires confidence in one's own strengths, valuing one's ability to achieve goals and goal orientation. All of this requires high self-esteem. Self-esteem is part of the cognitive schema relating to the self. Self-esteem is conceptualized as a one-dimensional cognitive construct with the role of self-reinforcement and self-protection. There are authors who consider self-esteem as a two-dimensional structure comprising the factors: self-acceptance and self-evaluation (Robu, 2013, Vasiliu, 2019) or the factors: positive self-evaluation and negative self-evaluation (Afari, Ward, Khine, 2012).

2. No gender differences were found in the assessment of self-esteem or the overlap between the current self and the future self. There is a growing body of research, which finds that gender differences in psychosocial constructs are diminishing or even disappearing. The direction in which society is moving favours the blurring of gender boundaries and the liberalisation of roles. The attribution of behaviours is determined by these roles and less and less by specific traits. The meanings of attributions outline the level of self-esteem and the perception of overlap between the current self and future self.

The results of the research captured a specific picture of the development of society up to the time of SARS-COV-2 pandemic crisis. Restrictive measures, stress

generated by uncertainty, the unknown, isolation, deterioration of interpersonal relationships and challenges generated by the global health situation have had an impact on the psycho-social picture. Future research should investigate the extent to which relationships between the constructs studied are preserved and whether personal variables, such as gender, discern their evaluation.

REFERENCES

Afari, E., Ward, G., Khine, M.S. (2012). *Global Self-Esteem and Self-Efficacy. Correlates: Relation of Academic Achievement and Self-Esteem among Emirati Students. International Education Studies,* vol. 5, no. 2, p. 49. DOI:10.5539/ies.v5n2p49.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, pp. 191- 215.

Bandura, A. (1994). *Self-efficacy*. In V.S. Ramachaudran (Ed.), Encyclopedia of human behavior, Vol. 4, pp. 71-81. New York: Academic Press.

Cheier, M.F., Carver, C.S., Bridges, M.W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology,* no. 67, pp. 1063-1078. DOI:10.1037/0022-3514.67.6.1063.

Chraif, M., Rizeanu, S. (2021). The relationship between loneliness, social satisfaction and self-esteem. *Romanian Journal of Psychology Studies, vol 9, issue 1, p. 51-58.*

Cosmoiu, R., Rizeanu, S. (2020). Relationship of core self-evaluation traits: self-efficacy, locus of control and self-esteem with academic achievement. *Romanian Journal of Psychology Studies,* vol.8, special issue, p 3-12.

Hal Ersner-Hershfield, H., Garton, M. T., Ballard, K., Samanez-Larkin, G.R., Knutson, B. (2009). Don't stop thinking about tomorrow: Individual differences in future self-continuity account for saving. *Judgment and Decision Making*, Vol. 4, No. 4, June 2009, pp. 280–286.

Feingold, A. (1988). Matching for attractiveness in romantic partners and same-sex friends: A meta-analysis and theoretical critique. *Psychological Bulletin,* 104(2), 226-235. DOI:10.1037/0033-2909.104.2,226.

Feingold, A. (1994). Gender differences in personality: A meta-analysis. *Psychological Bulletin*, 116(3), pp. 429-456. DOI:10.1037/0033-2909.116.3.429

Feng, J., Spence, I., Pratt, J. (2007). Playing an action video game reduces gender differences in spatial cognition. *Psychol Science,* Oct;18(10):850-5., DOI: 10.1111/j.1467-9280.2007.01990.x.

Gergen, K. J., Gergen, M. M., & Meter, K. (1972). Individual orientations to prosocial behavior. *Journal of Social Issues,* 28(3), pp. 105–130. DOI:10.1111/j.1540-4560.1972.tb00035.x.

Greenwald, A. G., & Pratkanis, A. R. (1984). The self. In R. S. Wyer, Jr. & T. K. Srull (Eds.), *Handbook of social cognition, Vol. 3*, pp. 129–178. Mahwah (U.S.): Lawrence Erlbaum Associates Publishers.

Gneezy, U., Niederle, M., Rustichini, A. (2003). Performance in Competitive Environments: Gender Differences. *The Quarterly Journal of Economics,* Volume 118, Issue 3, August 2003, pp. 1049–1074, DOI:10.1162/00335530360698496.

Hartmann, H. (1939). *Ego psychology and the problem of adaptation*. Translator, David Rapaport. New York: International Universities Press, Inc. (First edition published in 1939).

Higgins, E.T. (1989). Self-discrepancy theory: What patterns of self-beliefs cause people to suffer? In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology*, Vol. 22, pp. 93–136. New York: Academic Press.

Kihlstrom, J.F., & Cantor, N. (1984). Mental representations of the self. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology*, Vol. 17, pp. 1–47. New York: Academic Press.

Kohut, H. (1971). *The Analysis of the Self: A Systematic Approach to the Psychoanalytic Treatment of Narcissistic Personality Disorders*. International Universities Press, New York.

Kreitler, S., Kreitler, H. (1993). The cognitive determinants of defense mechanisms. In U. Hentschel, G. Smith, W. Ehlers & I. G. Draguns (Eds.), *The concept of defense mechanisms in contemporary psychology: Theoretical, research and clinical perspectives*, New York: Springer, pp. 152-183.

McGuire, W. J., & McGuire, C. V. (1988). Content and process in the experience of the self. In L. Berkowitz (Ed.), Advances in experimental social psychology, Vol. 21. *Social psychological studies of the self: Perspectives and programs*, pp. 97–144. New York: Academic Press.

Mihăilescu, Ș. (2001). *Emaniciparea femeii române. Anthology of texts 1815-1918.* Bucharest: Ecumenical Publishing House.

Nurra, C. & Oyserman, D. (2018) *From future self to current action: An identity-based motivation perspective,* Self and Identity, Vol. 17:3, pp. 343-364, DOI: 10.1080/15298868.2017.1375003.

Pallant, J.A. (2007). *Step-by-Step Guide to Data Analysis using SPSS for Windows third edition. Survival Manual*. Berkshire, England: Open University Press.

Robu, V. (2013). Assessment of self-esteem among adolescents. Psychometric properties for the Rosenberg scale. *Journal of Psychology, Association of Practicing Psychologists of Moldova*, no. 2, pp. 3-13.

Rosenberg, M. (1989). *Society and the Adolescent Self-Image*. Revised edition. Middletown, CT: Wesleyan University Press.

Rotter, J.B. (1982). *The development and applications of social learning theory*, New York: Praeger.

Shulman, S., Ben-Artzi, E. (2003). Age-Related Differences in the Transition from Adolescence to Adulthood and Links with Family Relationships. *Journal of Adult Development,* Vol. 10, Issue 4, pp 217–226, DOI:10.1023/A:1026006025155.

Tafarodi, R. W., & Milne, A. B. (2002). Decomposing global self-esteem. *Journal of Personality*, 70(4), 443–483. DOI:10.1111/1467-6494.05017.

Vasiliu, D. (2018). *Psychology research reminder. A friendly guide for students and beyond ...*, Bucharest: E.D.P.

Vasiliu, D. (2019). Rosenberg's Questionnaire for Self-esteem Evaluation. Psychometric Considerations. Recalibration. In C. Ignatescu (ed.), *12th LUMEN International Scientific Conference Rethinking Social Action. Core Values in Practice*, 15-17 May 2019, Iasi – Romania (pp. 360-370). Iasi, Romania: LUMEN Proceedings. DOI:10.18662/lumproc.181.

Vasiliu (2019a). *The relationship between the perception of the overlap of the present self with the future self and self-efficacy.* Annual scientific conference of PhD students and postdoctoral students, May 16, 2019, Ion Creanga State Pedagogical University, Chisinau.

Web resources:

National Convention, Decision No. 4 CN/2013 Official Gazette 715 of 20-Nov-2013, Romanian College of Psychologists, November 20, 2013. https://copsi.ro/wp-content/uploads/2017/04/9. hotarirea-nr.-4cn-2013-cd-si-cpd.pdf. [accessed on August 12, 2021].

 Practical Meta-Analysis Effect Size Calculator:
http://www.campbellcollaboration.org/escalc/html/EffectSizeCalculator-R-main.php [accessed on August 12, 2021].

GNU – PSPP: https://www.gnu.org/software/pspp [accessed on August 12, 2021].

THE RELATIONSHIP BETWEEN LIGHT TRIAD PERSONALITY TRAITS, SELF-ESTEEM AND POSITIVE RELATIONS

STELIANA, RIZEANU [a], MIHAELA, CHRAIF [b]

[a] *Hyperion University, Faculty of Psychology and Educational Sciences
Department of Psychology*
[b] *University of Bucharest, Faculty of Psychology and Educational Sciences
Department of Psychology*

Abstract

Empathy–Perspective-taking, Emotion Recognition, Emotional Contagion, Compassion Concern for Others Who Suffer, Distress Tolerance, Desire to Reduce Others' Suffering, Understanding the Universality of Human Suffering and Altruism Warm Glow represents personality traits investigated by the researcher in the last decade. Positive relations and Self-esteem were related in various studies with the mentioned personality traits from Light Triad. The major objectives of the present study are focused on evidencing the correlation between the dimensions of Light Triad, Positive relations (WB) and Self-esteem. Also, two linear regression models were tested. The participants were a number of 26 people, different professional background, aged between 19 and 56 (Mean= 35.2; S.D.=10.99). The instruments were the followings: The Ryff Well-being scale (Ryff, 1989; Ryff & Keyes, 1995), Rosenberg Self-esteem scale (Rosenberg, 1965) and The Light Triad Scale (Johnson, 2018). The instruments were applied on-line by filling out a Google document form. The participants were informed about the anonymous and informed consent accepted. The results confirmed the research hypotheses evidencing that there are positive bivariate correlations between the variables: Cognitive Empathy, Self-esteem, Positive relations, Distress tolerance and positive relations (WB). Furthermore, Cognitive empathy/emotional contagion and positive emotions predicted the Self-esteem dimension. Further studies should focus on Universality of Human Suffering, Cognitive Empathy, Self esteem regarding the human support, altruism and development in the society.

Keywords: Universality of Human Suffering, Cognitive Empathy, Self-esteem, Positive relations, Distress tolerance.

1. INTRODUCTION

Kaufman, Yaden, Hyde & Tsukayama (2019) evidenced the Light personality triad traits in contrast with the Dark personality traits. Johnson (2018) highlighted in the dissertation paper that empathy as Light triad represents an affective reaction

Corresponding author: Steliana Rizeanu
E-mail address: stelianarizeanu@yahoo.com

another perception as the cited authors Joliffe & Farrington (2006) mentioned.

Neumann, Kaufman, Brinke, Yaden, Hyde, & Tsykayama, (2020) conducted a study regarding the personality traits Light Triad versus Dark Triad. The authors analysed the personality traits as Kantianism, humanism, faith in humanity versus the dark personality traits. They evidenced that human nature highlighted both light and dark personality traits related with the professions. Eslinger, Moll & Oliveira (2002) highlighted the role of emotional perception-action process. Ruvalcaba Romero, Fernández-Berrocal, Salazar-Estrada & Gallegos (2017) were focused on evidencing the relationship between the Positive emotions, self-esteem, interpersonal relationships, emotional intelligence, life satisfaction and social support. The findings highlighted the mediator role of the self-esteem and positive emotions as mediators between emotional abilities and satisfaction with life.

Coll, Mateu, Espert & Prado (2020) conducted a study regarding the relationship between Empathy, Self-Esteem, Emotional intelligence and Life Satisfaction. Hence, Empathy predicted high level of Self - esteem until the age of 19 years old participants, while Rizeanu & Chraif (2020) conducted a study concerning the relationship between humour, life satisfaction, emotions and well-being.

Neff & Seppala (2017) were interested to study the relationship between Compassion, Well-Being, and the Hypo-egoic Self. The authors highlighted the role of Self-compassion and interpersonal relationships regarding a training program. Further research questions rise on highlighting the compassion for self and others.

Demarree & Rios (2014) conducted a study regarding the relationship between self-esteem and self-clarity. Hence, the relationship between Self-esteem and Self clarity was confirmed, but the high level of self - esteem according the authors was desirable. An interesting point of view regarding the Self-esteem was the manipulation.

Khajeh, Baharloo, & Soliemani (2014) were interested to evidence the relationship between psychological well-being and empathy. The participants were a number of 200 married students from Iran. The Alpha Cronbach was .88 for Positive relations. Hence, the authors evidenced that Empathy predicted Positive Well-being according the linear regression model tested.

Musek & Grum (2021) were interested to study the bright side of human personality. The authors were interested in highlighting which of the personality traits predict well-being and prosocial values. In this sense, the dimensions of the Light Triad instrument were associated with life satisfaction and social and cognitive values.

2. OBJECTIVE AND HYPOTHESES

2.1. OBJECTIVE

The research objectives:

- Establishing bivariate correlation between the dimensions of Light Triad, Positive relations (WB) and Self-esteem.
- Establishing regression models to predict the Positive relations (WB) and Cognitive empathy/emotional contagion.

2.2. HYPOTHESES

The research hypotheses are the followings:

1. H1: We assume that there is a statistically significant correlation between Positive relationship (WB) and Self-esteem.
2. H2: We assume that there is a statistically significant correlation between Cognitive empathy/emotional contagion and Self-esteem.
3. H3: We assume that there is a statistically significant correlation between Distress tolerance and Self-esteem.
4. H4: We assume that there is a statistically significant correlation between Cognitive Empathy – Perspective-taking and Understanding the Universality of Human Suffering.
5. H5: We assume that Self-esteem predict Cognitive empathy/emotional contagion.
6. H6: We assume that Self-esteem predict Positive relations (WB).

3. METHOD

3.1 THE PARTICIPANTS

The participants were a group of approximately 26 people aged between 19 and 56 (Mean= 35.2; S.D.=10.99), both women and men from different professional backgrounds. They responded by filling out a Google document form.

3.2. THE INSTRUMENTS

1. The Ryff Well-being scale (Ryff, 1989; Ryff, & Keyes, 1995). From this instrument were selected the items corresponding to the Positive relations dimension. The positive dimension consists of 7 items on the Likert scale from 1 to 6.
2. Rosenberg Self-esteem scale (Rosenberg, 1965). The internal consistency (Alpha Cronbach) is estimated between 0.61 and 0.71. The reliability was estimated by Johnson et al. (1983). Test-retest reliability was estimated at 0.88 (Coopersmith, 1967). Rosenberg constructed a scale of ten items to which subjects can respond by choosing one of four answer options: "true," "rarely true," "sometimes true," "false." The global level of self-esteem influences the choices in the lives of individuals. The sores obtained at this scale are between the values 10, which represent the lowest possible self-esteem grade and 40 which represent the highest possible self-esteem grade.

3. The Light Triad Scale (Johnson, 2018). The dimensions of the light trad are the followings: Empathy Cognitive, Empathy – Perspective-taking, Cognitive Empathy - Emotion Recognition, Affective Empathy - Emotional Contagion, Compassion Concern for Others Who Suffer, Distress Tolerance, Desire to Reduce Others' Suffering, Understanding the Universality of Human Suffering, Altruism Warm Glow and Principle of Care. The instrument is composed from 36 items on a Likert scale from 1 to 5. Johnson (2018) highlighted that values less than .06 indicates good fit and for the CFI and TLI, values greater than .90 indicate good fit, and values greater than .95.

3.3. PROCEDURE

From the beginning the Ethical code and GDPR legislation were respected. The instruments were applied on-line by filling out a Google document form, with the participants anonymous and informed consent accepted. The participants agree with the research, understood the objectives and agreed with the data analyses and publications in research journal respecting the research ethics.

3.4. THE DESIGN

Testing the correlation hypothesis the variables were: Positive relationship (WB), Self-esteem, Cognitive empathy/emotional contagion, Distress tolerance, Cognitive Empathy – Perspective-taking, Understanding the Universality of Human Suffering.

In order to test the regression hypotheses, the variables were the followings:
- Independent variables: Self-Esteem.
- Dependent variables: Cognitive empathy/emotional contagion, Positive relations (WB).

4. RESULTS

After the data collection the hypothesis were tested using the program SPSS.

Testing hypothesis 1:

"We assume that there is a statistically significant correlation between Positive relationship (WB) and Self-esteem".

Table 1 – Correlation matrix between positive relationship and Self-esteem

	Positive relationship (WB)	Self-esteem
Positive relationship (WB)	1	r = .698
Self-esteem	r = .698	1

The hypothesis was statistically significantly confirmed at the .01 threshold with a Pearson bivariate correlation coefficient (r = .698).

In table 2 can be seen the correlation between the variables: Cognitive empathy/emotional contagion and Self-esteem. Hence, the second hypothesis "We assume that there is a statistically significant correlation between Cognitive empathy/emotional contagion and Self-esteem" was confirmed for the threshold p=.038 <.05.

Table 2 – Correlation matrix between the variables Distress tolerance and Self-esteem

	Cognitive empathy/emotional contagion	Self-esteem
Cognitive empathy/emotional contagion	1	r=.582
Self-esteem	r=.582	1

Testing the third hypothesis, in table 3 can be seen the bivariate correlation between the variables: Distress tolerance and Self-esteem. Hence, the second hypothesis "We assume that there is a statistically significant correlation between Distress tolerance and Self-esteem" was confirmed for the threshold p=.002 <.01.

Table 3 – Correlation matrix between the variables Distress tolerance and Self-esteem

	Distress tolerance	Self-esteem
Distress tolerance	1	r=.582
Self-esteem	r=.582	1

Testing the fourth hypotheses "We assume that there is a statistically significant correlation between Cognitive Empathy – Perspective-taking and Understanding the Universality of Human Suffering", the Pearson bivariate correlation statistically test was applied. In table 4 can be seen the results confirming the fourth hypothesis at the threshold p <.01.

Table 4 – Correlation matrix between the variables Distress tolerance and Self-esteem

	Cognitive Empathy – Perspective-taking	Understanding the Universality of Human Suffering
Cognitive Empathy – Perspective-taking	1	r=.420
Understanding the Universality of Human Suffering	r=.420	1

Testing the fifth hypothesis "We assume that Self-esteem predict Cognitive empathy/emotional contagion", the simple regression model was applied. In table 5 can be see the R and R Square values for the prediction model. For testing the fifth hypothesis, the variable self-esteem was calculated as the sum of all ten items of the questionnaire.

Table 5 – Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.409[a]	.168	.133	3.296

a. Predictors: (Constant), Self-esteem

b. Dependent Variable: Cognitive empathy/emotional contagion

In the table 6 can be seen the Constant, the Unstandardized Coefficients and the Standardized Coefficients of the linear regression model.

Table 6 – Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	28.275	3.750		7.540	.000
	Self-esteem	-.242	.110	-.409	-2.199	.038

a. Dependent Variable: Cognitive empathy/emotional contagion

Hence, the hypotheses regarding the dimension observing of the mindfulness as predictor for the self-esteem has been confirmed at the significance $p=.029<.05$. The regression equation according the presented model is the following:

Cognitive empathy/emotional contagion =28.275-.242* Self-esteem

Testing the sixths hypothesis regarding the "We assume that Self-esteem predict Positive relations (WB)", the R and R Square values can be seen in the table 7.

Table 7– Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.698[a]	.487	.466	4.509

a. Predictors: (Constant), Self-esteem

b. Dependent Variable: Positive relations (WB)

According the standardized coefficients for the regression model, the regression equation is the following:

Positive relations (WB) =8.571-.718* Self-esteem

Hence, the hypothesis has been confirmed for the statistically significant threshold p<.01.

5. CONCLUSIONS

Testing the research hypotheses with the specific statistical tests were confirmed at the thresholds of p<.01 and p<.05. As previous studies have shown, Empathy correlates with the Self-esteem, Positive relationships and the personality traits of the Light triad. As the Light Triad instrument was projected, Empathy is an important dimension of it.

Analysing Self-esteem, according to the linear regression model inversely predicted positive relationships as a facet of well-being (p<.01). Furthermore, according the confirmed statistically hypothesis Self-esteem predicted emotional contagion as dimension of the Cognitive empathy (p<.05).

The hypotheses regarding the bivariate correlations between the variables: Cognitive empathy, Distress tolerance, Positive relationship (WB), Understanding the Universality of Human Suffering and Self-esteem were confirmed (p<.05). Human rights were studied for decades (Donnelly, 2007; Andorno & Baffone, 2014).

However, a basic point in future research is Understanding the Universality of Human Suffering as a feature of people's personality. The Light Triad dimensions can be studied in relation to many other variables such as: social support, understanding people's perception of life, work and many others.

REFERENCES

Andorno, R. & Baffone, C. (2014). Human Rights and the Moral Obligation to Alleviate Suffering. In Green, R. & Palpant, N. (2014). *Suffering and Bioethics:* Oxford University Press. 10.1093/acprof:oso/9780199926176.003.0009.

Coll, M., Mateu, D., Espert, M. & Prado G. V. (2020). Emotional Intelligence, Empathy, Self-Esteem, and Life Satisfaction in Spanish Adolescents: Regression vs. QCA Models. *Frontiers in Psychology, 11*. 10.3389/fpsyg.2020.01629.

Demarree, K. & Rios, K. (2014). Understanding the relationship between self-esteem and self-clarity: The role of desired self-esteem. *Journal of Experimental Social Psychology*, 50. 202–209. 10.1016/j.jesp.2013.10.003.

Donnelly, J. (2007). The Relative Universality of Human Rights. *Human Rights Quarterly, 29*. 281-306. 10.1353/hrq.2007.0016.

Eslinger, P., Moll, J. & de Oliveira, R. (2002). Emotional and cognitive processing in empathy and moral behavior. *Behavioral and Brain Sciences, 25.* 34-35. 10.1017/S0140525X02360011.

Johnson, L. K.D. (2018). The Light Triad Scale: Developing and Validating a Preliminary Measure of Prosocial Orientation. Electronic Thesis and Dissertation Repository. 5515. https://ir.lib.uwo.ca/etd/5515

Kaufman, S. B., Yaden, D. B., Hyde, E., & Tsukayama, E. (2019). The light vs. Dark Triad of personality: Contrasting two very different profiles of human nature. *Frontiers in Psychology, 10*, Article 467. https://doi.org/10.3389/fpsyg.2019.00467

Khajeh, A., Baharloo, G. & Soliemani, F. (2014). The relationship between psychological well-being and empathy quotient. *Management Science Letters, 4.* 1211-1214. 10.5267/j.msl.2014.5.005. Musek, J., & Grum, D. K. (2021). The bright side of personality. *Heliyon, 7*(3), e06370. https://doi.org/10.1016/j.heliyon.2021.e06370

Neff, K., D., & Seppala, E. (2017). Compassion, Well-Being, and the Hypo-egoic Self. In K. W. Brown & M. Leary (Eds), *Oxford Handbook of Hypo-egoic Phenomena: Theory and Research on the Quiet Ego*. Oxford University Press.

Neumann, C., Kaufman, S., Brinke, L. Yaden, D. Hyde, E. & Tsykayama, E. (2020). Light and dark trait subtypes of human personality – A multi-study person-centered approach. *Personality and Individual Differences.* 164. 110121. 10.1016/j.paid.2020.110121.

Rizeanu, S., Chraif, M. (2020). The relationship between humor, life satisfaction, emotions and well-being. *Romanian Journal of Psychology Studies, vol 8, issue 2, p. 31-40.*

Rosenberg, M. (1965). *Society and the adolescent self-image.* Princeton, NJ: Princeton University Press.

Ruvalcaba Romero, N., Fernández-Berrocal, P., Salazar-Estrada, J. & Gallegos, J. (2017). Positive emotions, self-esteem, interpersonal relationships and social support as mediators between emotional intelligence and life satisfaction. *Journal of Behavior, Health & Social Issues, 9.* 10.1016/j.jbhsi.2017.08.001.

Ryff, C. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*, 1069–1081.

Ryff, C., & Keyes, C. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*, 719–727.

PSYCHOMETRIC PROPERTIES OF THE HEXACO-PI-R THAI VERSION AND RELATIONSHIPS BETWEEN HEXACO AND FIVE FACTOR PERSONALITY MODEL

PANIDA YOMABOOT[a], THANAYOT SUMALROT[a] AND SOISUDA IMAROONRAK[a]

[a] *Mahidol University, Faculty of Medicine Siriraj Hospital*
Department of Psychiatry

Abstract
This research aimed to examine psychometric properties and factor structure of HEXACO PI-R Thai version as well as investigate relationships between personality factors based on HEXACO model and Five Factor model measured by an International Personality Item Pool (IPIP-NEO) Thai version. Data was collected online from 1097 participants (mean age 27.82, SD 5.96). Results show that HEXACO PI-R has acceptable internal consistency (Cronbach's alphas .68 to .86). Result from Confirmatory Factor Analysis supports six-factor HEXACO model with acceptable fit indices (100-item version: CFI = .84, NNFI = .83, RMSEA [90%CL] = .066 [.066, .067], 60-item version: CFI = .82, NNFI = .82, RMSEA [90%CL] = .066[.065, .068]). Correlation levels are relatively low within six factors of HEXACO (correlation coefficients ranged from .08 to .42). Extraversion, Openness, Agreeableness and Conscientiousness from HEXACO PI-R correlated strongly with these factors based on Five Factors Model measured from IPIP-NEO Thai version (correlation coefficients ranged from .74 to .78) while Neuroticism moderately correlated with Emotionality (r = .52). Honesty-humility, a new model, correlated poorly with the five factors. Results from this study support HEXACO model of personality and indicate that HEXACO PI-R both full (100 items) and short (60 items) versions have acceptable psychometric properties and are applicable for personality measurement. Limitation and suggestion for future study are discussed.

Keywords: *internal consistency reliability, construct validity, confirmatory factor analysis, personality inventory*

1. INTRODUCTION

Personality has always been one of the main topics in psychology as it contributes to human behavior. Among the personality theories, Five Factor

Corresponding author: Thanayot Sumalrot

E-mail address: thanayot.sum@mahidol.edu

Model emerged from lexical analysis appears to be the most robust and universal model (McCrae & Costa, 1997). The five traits include Openness to experiences, Conscientiousness, Extraversion, Agreeableness and Neuroticism. A latter study on personality traits also employed the same method proposes a different model. According to Ashton and Lee (2017), personality can be classified into six traits; Honesty-Humility (H), Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O), shorten as HEXACO (Ashton & Lee, 2009; Ion et al., 2017; Lee & Ashton, 2013). In Ashton and Lee's study, they included sample from various languages and cultural background. Honesty-Humility (H) is first introduced from this cross-cultural research. Personality based on HEXACO model can be measured by HEXACO-PI-R which was developed by Ashton and Lee (2004, 2005). This measure has been translated and examined in many countries with different languages. It was found that HEXACO model was replicated in some cultures (Ion et al., 2017).

In Thailand, HEXACO model of personality is considered a new model and not widely used. So far, there has been only one original research that studied the psychometric property and HEXACO personality traits of the Thai people. Such research was a part of a larger cross-cultural investigation. Sample was 210 Thais who were between 17 – 25 years of age. The six personality traits; HEXACO, is supported by the result of this study. However, given a small sample size of such study, replication is needed to investigate whether the six personality factors would be confirmed in a larger sample size or not.

2. OBJECTIVE AND HYPOTHESES

The purposes of this study were to replicate and expand the original work by investigating the factor structure and psychometric property of the HEXACO-PI-R 100 and 60- item version in the Thai language. Additionally, relationship between HEXACO personality factors and five personality traits from Big Five were also examined.

3. METHOD

This research was ethically approved by Siriraj Institutional Review Board of Research in Human, SIRB code 144/2560(EC4). Participants were recruited from the Internet. Data was collected online from April through October 2017. Research advertisement and a link to an online questionnaire were posted on the authors' institution official Facebook page; https://www.facebook.com/siclinpsy/. Participants who were between 18-40 years old, Thai native speakers were eligible to take part in the study. Participants were informed about the study procedure.

Participants were also informed that the result will be published but their identity will be kept anonymously. After the participants had been informed, they were asked to give their consent before continue taking part. Participation was voluntary.

Participants: Over a thousand participants took part in this research. Responses with greater than 10% missing data were excluded. As a result, data from 1097 participants were included in data analysis processes. Descriptive data were yielded. Mean age of the sample was 27.82 (SD 5.96). Female participants outnumbered male participants (female 86.2%, male 13.8%). The majority of the sample hold bachelor's degree as a highest educational level (63.6%) and 21.6% of the sample hold master's degree. Additionally, 31.4% of the sample were studying in graduate and post graduate level (31.4%) while and 28.4% were company employees.

Measures: **HEXACO PI-R**: A self-report; HEXACO-PI- R consists 100 items measuring personality based on HEXACO model (Lee & Ashton, 2004). It is a 5-point Likert's scale ranging from 1 (strongly disagree) to 5 (strongly agree). Participants were required to read each item and rate the accuracy of each sentence on explaining themselves. This measure, developed by Lee and Ashton (2004), measures six factors of personality which are Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O), and Honesty-Humility (H) dimension. Examples of the items are "I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed." (H), "I don't mind doing jobs that involve dangerous work." (E), "I feel reasonably satisfied with myself overall." (X), "I generally accept people's faults without complaining about them." (A) and "I would like a job that requires following a routine rather than being creative." (O). The six facets of personality are the results of the cross-cultural lexical study (Ion et al., 2017). Although the factors are partially overlapped with the FFM but these six factors are not the expansion of the FFM (Ion et al., 2017).

For the Thai Version, the scale was translated by Kattiya Ratanadilok as a part of the larger cross-cultural research and back translated by a blind translator (Ion et al., 2017). The measure was tested by 210 Thai participants (73% male, 27% female, overall mean age 19.56, SD 1.33). The original paper reported acceptable internal consistency of the six facets (Cronbach's alpha .75 for H, .70 for E, .74 for X, .73 for A, .79 for C, and .67 for O). Results from Confirmatory Factor Analysis revealed acceptable goodness-of-fit indexes (CFI= .888, RMSEA= .053, respectively). Based on the same set of items, it can be scored as a full version (using 100 items) and short version (using 60 items).

For this particular sample, the internal consistency is .82 for H, .73 for E, .86 for X, .81 for A, .78 for C and .79 for O indicating that data from this sample is reliable for further analysis.

International Personality Item Pool (IPIP-NEO): This 50-item self-report scale measures five personality traits based on Five-Factor Model of personality which are Openness to Experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism. Participants were asked to read 50 sentences and rate how accurate each sentence describe themselves and behaviors. Examples of the IPIP-NEO Thai version are "Believe in the importance of art" (O), "Make plans and stick to them" (C), "Keep in the background" (E), "Accept people as they are" (A), "Have frequent mood swings" (N). The original version of the IPIP-NEO was developed in English. Thai version of the IPIP-NEO was translated and back-translated as a part of the previous research by Yomaboot and Cooper (2016). Internal consistency analysis of the IPIP-NEO for this particular sample showed moderate to good reliability (Cronbach's Alpha .76 for O, .80 for C, .64 for E, .75 for A and .52 for N) (Yomaboot & Cooper, 2016). In this study, authors used an original scoring from 50 items (Lim & Ployhart, 2006).

Data Analysis: This research aims to examine factor structure and psychometric properties of the full and short version of the HEXACO-PI-R Thai. Confirmatory Factor Analysis was analyzed using Lisrel (version 8.72) with Maximum Likelihood estimation. Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and Non-Normed Fit Index (NNFI) indices were ascertained to test global fit of the priori HEXACO model. Furthermore, correlations between six factors from HEXACO and five factor personality traits were analyzed in order to examine the convergent correlation or criterion validity of the HEXACO model.

4. RESULTS

Preliminary data analysis was conducted to examine sampling adequacy and distribution of the data. It was found that this data set is appropriate for factor analysis (KMO = .873) which is accordance with the notion that the Kaiser-Meyer-Olkin (KMO) greater than 0.8 indicates sampling adequacy. Skewness and Kurtosis were also ascertained in order to examine the distribution of the data. Skewness of the six factors ranged from -.379 to -.025 while the Kurtosis ranged from -.297 to .168. Skewness of the five factor personality traits yielded from the IPIP-NEO Thai ranged from -.213 to -.023 and the Kurtosis ranged from -.545 to -.115. According to Tabri and Elliott (2012), Skewness < 3 and Kurtosis < 10 are considered acceptable for normal distribution (Tabri & Elliott, 2012). Thus, the data yielded from this sample is considered normally attributed and statistically

appropriate for further analysis. An examination of gender differences revealed there was significant different in Emotionality. Female participants had higher score then male sample (p <.05).

Reliability Analysis

Internal consistency of HEXACO PI-R 60-item and 100-item version were analyzed using Cronbach's alpha coefficient. Results showed that both versions of HEXACO PI-R have good reliability. Cronbach's alpha of the 60-item version is .78 and is .85 for the 100 item-version. This value indicates that the 100 item-version has slightly higher reliability. Reliability analysis for subscales also show satisfactory results. Each factor of HEXACO PI-R has the Cronbach's alpha ranged from .73 to .86 for 100-item version and from .68 to .81 for 60-item version which are in acceptable level.

Table 1 - Cronbach's Alpha of HEXACO PI-R scales

	100-item version	60-item version
Factor	.85	.78
H	.82	.77
E	.73	.68
X	.86	.81
A	.81	.70
C	.78	.71
O	.79	.74

Correlation between HEXACO and Big Five personality

Correlation analyses were analyzed firstly to examine relationships between factors within HEXACO model. From Table 2, it was found that correlations between the six factors of both HEXACO PI-R 60- and 100-item versions were relatively low (correlations coefficients ranged from .08 to .42 for 100-item version and ranged from .10 to .39 for 60-item version). These small correlations coefficients between within HEXACO imply that the six factors measure different aspects of personality.

Table 2 - Correlation between HEXACO personality factors

	H	E	X	A	C	O
H		-.11**	.18**	.27**	.22**	.10**
E	-.08*		-.30**	-.26**	-.17**	-.13**
X	.10*	-.26**		.34**	.39**	.18**
A	.23**	-.33**	.39**		.16**	.17**
C	.18**	-.17**	.42**	.21**		.13**
O	.12**	-.11**	.17**	.17**	.14**	

*p < .05, **p < .01. Note: Values below diagonal is correlation coefficients of 100-item version and values above diagonal are correlation coefficients of 60-item version of HEXACO PI-R.

In terms of correlations between five factors of personality from IPIP-NEO and six factors from HEXACO PI-R, results reveal similar finding as found in previous studies (Ashton, Lee, & de Vries, 2014). From this present study, Extraversion, Openness, Agreeableness, and Conscientiousness show high correlations between the scores yielded from IPIP-NEO and HEXACO PI-R both 100 and 60 items version. From Table 3, high correlations were found between Conscientiousness from IPIP-NEO and HEXACO PI-R in both 100- and 60-item version (r = .78 and .74, respectively). Agreeableness from IPIP-NEO had high correlation with Agreeableness from HEXACO PI-R 100-item (r = .74) and 60 item (r = .73). Extraversion scores from IPIP-NEO and HEXACO PI-R had high correlation with each other in both 100 and 60 item version (r = .74 and .70 respectively). Openness to experience from IPIP-NEO also showed significant relation with Openness from HEXACO PI-R score in both 100 and 60 item version (r = .76 and .78 respectively). However, similar to the findings from previous study (Ashton & Lee, 2009; Ion et al., 2017), Neuroticism from IPIP-NEO correlated moderately with Emotionality from HEXACO PI-R both 100-item version (r = .52) and 60-item version (r = .51). Interestingly, a new factor emerged from HEXACO study, Honesty-humility had small relationship with personality factors from IPIP-NEO, Agreeableness and Conscientiousness (Agreeableness r = .33 (100 item), .35 (60 item), Conscientiousness r = .21 (100 item), .26 (60 item). Honesty-humility also had small correlation coefficient values with all other factors from Five Factor Model.

Table 3 - Correlations between subscales of the IPIP-NEO and HEXACO

IPIP-NEO Scales	HEXACO Scales					
	Honesty-humility	Emotionality	Extraversion	Openness	Agreeableness	Conscientiousness
Neuroticism	-.19**/-.24**	.52**/.51**	-.58**/-.59**	-.06/-.08**	-.49**/-.46**	-.36**/-.32**
Extraversion	-.12**/-.07*	-.10**/-.14**	.74**/.70**	.16**/.17**	.25**/.21**	.25**/.22**
Openness	.04/.05	-.05/-.09**	.13**/.13**	.76**/.78**	.11**/.10**	.10*/.10**
Agreeableness	.33**/.35**	-.17**/-.15**	.42**/.41**	.14**/.15**	.74**/.73**	.28**/.24**
Conscientiousness	.21**/.26**	-.21**/-.22**	.57**/.58**	.18**/.18**	.29**/.26**	.78**/.74**

*p < .05, **p < .01. Note: The former values are correlation coefficients of the 100-item version/ the latter values are correlation coefficients of the 60-item version.

Construct Validity

Confirmatory factor analysis (CFA) was performed to examine factor structure of HEXACO model of personality measured from HEXACO PI-R. Given that the data from this sample is normally distributed, Maximum Likelihood estimation was used (Kline, 2005). From table 4, results from CFA indicate that the

model fit indices are acceptable (RMSEA) or slightly less than the good fit values (CFI and NNFI). The model fit indices are as following: HEXACO PI-R 100-item version, CFI = .84, NNFI = .83, RMSEA [90%CL] = .066[.066, .067] and for the HEXACO PI-R 60-item version, CFI = .82, NNFI = .82, RMSEA [90%CL] = .066 [.065, .068].

Theoretically, goodness of fit is affected by correlated errors. Therefore, authors adjusted the model based on modification indices as can be seen in Table 4.

Table 4 - Goodness-of-fit statistics of six-factor model of HEXACO

Model	χ^2 (df)	CFI	NNFI	RMSEA [90%CL]
100-item version				
- 6-factor model	25922.72 (4449)	.84	.83	.066 [.066,.067]
- 6-factor model (15 correlated errors)	20878.86 (4434)	.87	.87	.058 [.057,.059]
60-item version				
- 6-factor model	9884.33 (1695)	.82	.82	.066 [.065,.068]
- 6-factor model (12 correlated errors)	7857.69 (1683)	.87	.86	.058 [.057,.059]

Discussion

HEXACO model is considered a relatively new model emerged from lexical method studied in samples with various languages and cultural background. It is claimed that this model is somewhat overlap but not the extension of Five Factor Model (Ion et al., 2017). This present study aimed to replicate a previous study (Kibeom Lee & Ashton, 2013) to examine factor structure of HEXACO PI-R full and short versions in Thai sample. Authors also aimed to investigate psychometric properties by looking at internal consistency of this personality questionnaire, relationships between the six HEXACO factors and the Big Five factors were also ascertained to examine criterion validity.

Results from internal consistency analyses show that HEXACO PI-R Thai language, translated by Kattiya Ratanadilok as a part of the larger cross-cultural research (Ion et al., 2017) has satisfactory results. Cronbach's alphas of HEXACO PI-R subscales 100-item and 60-version of HEXACO PI-R ranged from .68 to .86. In Ion et.al study (2017) internal consistency values of HEXACO PI-R studied in Thai sample (N = 210) ranged from .67 to .75. It can be seen that results from this study have slightly better reliability. It might be the case that this study employed bigger sample size which, at the same time, indicates that results are more representative and provides better generalizability. When consider its relationships with personality scores from Five Factor Model measure, it was found that Extraversion, Agreeableness, Openness to Experiences and Conscientiousness from Five Factor Model have high correlation with those factors from HEXACO model (r > .7) which indicates that these four factors measure relatively comparable constructs.

However, Emotionality factor shows moderate association with Neuroticism from Five Factor Model. Although these two factors, Emotionality and Neuroticism are superficially similar but there is a substantial difference. To clarify, Emotionality is more related to the idea of being able to maintain emotionally stable and balance toward stressor, physical harms, and a need for support from others while Neuroticism is related to a tendency of experiencing negative emotion (Ashton & Lee, 2007; Kibeom Lee & Ashton, 2004).

These findings consistent with a study by Bashiri (2011) where the sample was undergraduate students in Iran. In Bashiri's study, it was found that Emotionality factor of HEXACO moderately correlated with Neuroticism from IPIP-NEO (r = .41) (Bashiri, Barahmand, Saeed, Hossein, & Vusugi, 2011). It also congruent with a study by Ashton (2014) which found moderate correlation between Neuroticism and Emotionality measured from 60-item version of HEXACO PI-R (r = .55). This significant partial association between the two personality factors from two personality model seems to be found cross-culturally.

In terms of Honesty-humility; an individual's sincerity, fairness, greed avoidance, and modesty, results revealed small correlation with the personality traits based on Five Factor model. According to Ashton (2014), this factor is partially overlapped with Agreeableness from Five Factor but it is largely distinct from Five Factors measure. This present study found significant relationship between Honesty-humility and Agreeableness from Five Factor but the coefficient is small (r = .3) which is similar to the coefficient value ascertained by Ashton's study (r = .28). Thus, these findings support the HEXACO model of personality.

The HEXACO model of personality can also be supported by the confirmatory factor analysis results from this present study. Results from the CFA confirm the six personality factors as proposed in HEXACO model (Ashton & Lee, 2009; Bashiri et al., 2011; Ion et al., 2017; Lee & Ashton, 2018). In Ashton and Lee's study (2009), the fit indices from their Thai sample were CFI = .888, RMSEA [90%CL] = .053 [.040, .066]. However, the p-value of Chi-Square statistic is significant, this might be the case that the authors employed Maximum Likelihood method which is sensitive to a large sample size (Bentler & Bonett, 1980; Joreskog & Sorbom, 1993). So, authors sought alternative indices to assess model fit. One of a statistic that diminishes the impact of sample size on the Model Chi-Square is relative/normed chi-square ($\chi2/df$) (Wheaton, Muthen, Alwin, & Summers, 1977). According to Wheaton (1977), this value should not exceed 5 (Wheaton et al, 1977). In this study, result showed that the relative chi-square values were 4.7 after modifying the model by letting the errors within the facets to be correlated. In general, RMSEA values less than 0.05 is considered good, values between 0.05 and 0.08 are acceptable, values between 0.08 and 0.1 are marginal, and values greater than 0.1 is poor (Fabrigar L. R., et al 1999). It can be seen that RMSEA value of this sample is acceptable (.066). Moreover, the CFI value is close

to 0.9 which is good fit. Additionally, according to Bentler (1990), NNFI index should be over .9. The result from this found that NNFI is lower than .9 but it is slightly and after modifying the model by allowing items errors within the factors to be correlated, the goodness-of-fit indices improved.

5. CONCLUSIONS

To summarized, results from this study support the HEXACO model in Thai sample. Results also indicate that the HEXACO PI-R both full and short version (100 items, 60 items) could be a useful tool for measuring personality traits. Additionally, using this model might be more beneficial over using the Five Factor model as it provides more insight into personality by being able to measure an individual sense of honesty and humility. However, although sample size of this study is considerably large, generalization of findings still is limited due to an imbalance of the sample's genders and educational background. Moreover, this study was conducted online; finding might not be applied to non-internet users. Further study should try to eliminate this limitation by balancing male and female sample as well as research in sample with more variety educational and socioeconomic background.

Declaration of interest
The authors declare that they do not have any conflict of interest.

REFERENCES

Ashton, M. C., & Lee, K. (2007). Empirical, Theoretical, and Practical Advantages of the HEXACO Model of Personality Structure. *Personality and Social Psychology Review, 11*(2), 150–166. https://doi.org/10.1177/1088868306294907

Ashton, M. C., & Lee, K. (2009). The HEXACO–60: A Short Measure of the Major Dimensions of Personality, *Journal of Personality Assessment, 91*(4), 340-345. https://doi.org/10.1080/00223890902935878

Bashiri, H., Barahmand, U., Saeed, A. Z., Hossein, G. G., & Vusugi, A. (2011). A study of the psychometric properties and the standardization of HEXACO personality

inventory. *In Procedia - Social and Behavioral Sciences* (Vol. 30, pp. 1173–1176). https://doi.org/10.1016/j.sbspro.2011.10.228

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*(3), 588–606. https://doi.org/10.1037/0033-2909.88.3.588

Ion, A., Iliescu, D., Aldhafri, S., Rana, N., Ratanadilok, K., Widyanti, A., & Nedelcea, C. (2017). A cross-cultural analysis of personality structure through the lens of the HEXACO model. *Journal of Personality Assessment, 99*(1), 25–34. https://doi.org/10.1080/00223891.2016.1187155

Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Scientific Software International; Lawrence Erlbaum Associates, Inc.

Lee, K., & Ashton, M. C. (2018). Psychometric Properties of the HEXACO-100. Assessment, 25(5), 543–556. https://doi.org/10.1177/1073191116659134

Lee, K., & Ashton, M. C. (2004). Psychometric Properties of the HEXACO Personality Inventory. *Multivariate Behavioral Research, 39*(2), 329-358. https://doi.org/10.1207/s15327906mbr3902

Lim, B. C., & Ployhart, R. E. (2006). Assessing the convergent and discriminant validity of Goldberg's international personality item pool - A multitrait-multimethod examination. *Organizational Research Methods*, *9*(1), 29–54. https://doi.org/10.1177/1094428105283193

Tabri, N., & Elliott, C. M. (2012). Principles and Practice of Structural Equation Modeling. *Canadian Graduate Journal of Sociology and Criminology, 1*(1), 305-. https://doi.org/10.15353/cgjsc-rcessc.v1i1.25

Wheaton, B., Muthén, B., Alwin, D. F., & Summers, G. F. (1977). Assessing Reliability and Stability in Panel Models. *Sociological Methodology, 8*, 84–136. https://doi.org/10.2307/270754

Yomaboot, P., & Cooper, A. J. (2016). Factor structure and psychometric properties of the International Personality Item Pool-NEO (IPIP-NEO) Thai version. *Journal of Somdet Chaopraya Institute of Psychiatry*, *10*(2), 36–49.

THE RELATIONSHIP BETWEEN MINDFULNESS AND JOB CRAFTING

MIHAELA, CHRAIF [a], STELIANA, RIZEANU [b]

[a] *University of Bucharest, Faculty of Psychology and Educational Sciences
Department of Psychology*
[b]*Hyperion University, Faculty of Psychology and Educational Sciences
Department of Psychology*

Abstract

Job crafting is a complex variable studied more and more in recent decades. Remodeling work tasks but also relationships at work lead to increased performance. The present research aimed to highlight possible relationships between job crafting and mindfulness but also relevant aspects related to the age of employees and work experience. The objectives focused to evidence possible relationships between the variables: Relational craft, Cognitive craft, Task craft, Observe, Describe, Act with awareness, Accept without judgment and Age. Furthermore, two predictive models were tested. The participants were a group of 36 people aged between 19 and 63 years old (M=35.75; S. D.=11.71), different professional backgrounds. They filled out a Google document form after they accepted voluntary and agreed and give their research consent. The instruments were Kentucky Inventory of Mindfulness Skills - KIMS (Baer, Smith & Allen (2004) and Job Crafting Questionnaire (Slemp & Vella-Brodrick, 2013). The hypothesis regarding the age predicted statistically significant the accept without judgement has been confirmed (p<.05). An explanation consists in that the years of work experience increase according the age and acceptance without judgment decreases. At workplace experience and age are important factor in decision taking, productivity, communication and relationships. Further studies should enlarge the sample and investigate the relationship between age, work experience, job crafting, communication and performance.

1. THEORETICAL FRAMEWORK

Baer, Smith & Allen (2004) conducted a study focused on the psychometric characteristics of the Kentucky Inventory of Mindfulness Skills. According the

*Mihaela Chraif
E-mail adress: mihaela.chraif@fpse.unibuc.ro
Steliana Rizeanu
E-mail address: stelianarizeanu@yahoo.com*

authors mindfulness is defined to include concentrating attention in a category or accepting the experience that occurs in present. Baum, Kuyken, Bohus, Heidenreich, Michalak & Steil (2010) were also interested to calculate the psychometric proprieties of the Kentucky Inventory of Mindfulness Skills.

Medvedev, Bergomi, Röthlin, & Krägeloh (2019) conducted a study regarding the psychometric properties of the Inventory of Mindfulness Experiences. The authors used Rasch analysis on a data collected from a 443 persons sample. The results represented a support for the psychometric properties.

Höfling, Moosbrugger, Schermelleh-Engel & Heidenreich (2011) conducted a study using the Mindful Attention and Awareness Scale (MAAS). Höfling, Ströhle, Michalak & Heidenreich (2011) developed in their study the German short version of the Kentucky Inventory of Mindfulness Skills. The authors performed confirmatory factor analysis on 20 items short version.

Nicastro, Jermann, Bondolfi & McQuillan (2010) conducted a study using the French version Kentucky Inventory of Mindfulness Skills on the clinical population.

Hansen, Lundh, Homman & Wångby-Lundh (2009) used the Swedish versions of the Mindful Attention Awareness Scale and the Kentucky Inventory of Mindfulness Skills to measure mindfulness.

Wrzesniewski & Dutton (2001) introduced for the beginning the concept of Job Crafting. Berg, Dutton & Wrzesniewski (2013) wrote a chapter in a book regarding the way that employee redesign the workplace. Moghimi, Scheibe & Van Yperen (2017) were focused to evidence the relationship between the Job Crafting and Aging Employees. The cognitive strategies represent a starting point in workplace Job Crafting.

Slemp & Vella-Brodrick (2013) were interested to calculate the psychometric indicators for the Job crafting questionnaire. According the authors, the participants were a number of 334 employee which completed few instruments: Job crafting questionnaire, Organisational citizenship behaviour (Podsakoff, Ahearne, and MacKenzie, 1997), Affective wellbeing (Warr, 1990) and job satisfaction. The results are the basis for the validation and calculation of the fidelity of the Job crafting questionnaire.

Nielsen, Antino, Sanz-Vergel & Rodríguez-Muñoz (2017) were interested to validate the Job Crafting Questionnaire in different cultures (China, Taiwan, Spain, U.K.) and also to calculate test-retest validity. The authors underlined the importance of a Job Crafting Questionnaire consisting of five dimensions based on: increasing and decreasing social job demands and social job resources. In their studies the authors started from the idea that Job crafting represents a proactive behavior.

Schachler, Epple, Clauss, Hoppe, Slemp & Ziegler (2019) conducted a cross-cultural study focused on measuring the Job Crafting. The authors compare the results from two samples: German (N=482) and Australian (N=334) samples. The authors applied the Job Crafting Questionnaire (Slemp & Vella-Brodrick, 2013) with 15 items on a Likert scale from 1 to 5. The authors tested all the reliability and

validity psychometric indicators on both population samples. Also, the indicators RMSEA, CFI, and SRMR were calculated.

1. OBJECTIVE AND HYPOTHESES

1.1. OBJECTIVE

The general objective of the research underlined the relations between mindfulness and job crafting.

Secondary objectives:
- To evidence bivariate correlation between the variables: Relational craft, Cognitive craft, Task craft, Observe, Describe, Act with awareness, Accept without judgment and Age.
- To evidence regression models in order to be able to predict the Act with awareness, Accept without judgment, Relational craft, Cognitive craft, Task craft.

1.2. HYPOTHESES

The research hypotheses are the followings:
1. H1: We assume that there is a positive statistically significant correlation between the relational crafting and observe as mindfulness dimension.
2. H2: We assume that there is a positive statistically significant correlation between the relational crafting and act with awareness as mindfulness dimension.
3. H3: We assume that there is a positive statistically significant correlation between the relational crafting and accept without judgment as mindfulness dimension.
4. H4: We assume that there is a positive statistically significant correlation between the cognitive crafting and accept without judgment as mindfulness dimension.
5. H5: We assume that there is a positive statistically significant correlation between the cognitive crafting and act with awareness as mindfulness dimension.
6. H6: We assume that age predict statistically significant the accept without judgment.
7. H7: We assume that age predict statistically significant the observe dimension of mindfulness.

2. METHOD

3.1 THE PARTICIPANTS

The participants were a group of 36 people aged between 19 and 63 years old (Mean=35.75; Standard Deviation=11.71) both women and men from different professional backgrounds. They responded by filling out a Google document form after they understood the research objectives and accepted voluntary and agreed the research consent.

3.2. THE INSTRUMENTS

1. Kentucky Inventory of Mindfulness Skills - KIMS (Baer, Smith & Allen, 2004). The dimensions of the questionnaire are the followings: Observing, Describing, Act with Awareness and Accept without judgement. The questionnaire is composed from a number of 39 items from a Likert scale from 1 to 5. According the authors, the Alpha Cronbach coefficients were the followings: for the dimensions Observe, Describe, Act with Awareness, and Accept Without Judgment were .91, .84, .83, and .87. Regarding the second students sample in the same study, the Alpha Cronbach coefficients were .85, .86, .76, and .87.

2. Job Crafting Questionnaire (Slemp & Vella-Brodrick, 2013). The job crafting questionnaire is organized on three dimensions: Relational crafting, Cognitive crafting, Task crafting. According the factor analysis the three factors questionnaire model explained 56.23% of the variance. The authors performed a confirmatory factor analysis and find out the following psychometric characteristics: CFI = .89, IFI = .89 and RMSEA = .09. The fit indicators support the three factors model. The instrument contains a number of 19 items, structured on three factors and measured on a Likert scale from 1 to 5 (applied in the present study). The Cronbach Alpha coefficients calculated for all three dimensions on a sample of 334 participants were the followings: Relational crafting (.83), Cognitive crafting (.89), Task crafting (.87).

3.3. PROCEDURE

The instruments were applied on-line by filling out a Google document form. The participants were informed about the study respecting the Ethical code and the GDPR. The participants were informed about the research consent and also about the anonymous identity and accepted voluntary to participate to the research and the data to be analyzed and the results to be published in the research journal.

3.4. THE DESIGN

Testing the correlation hypothesisthe variables were: Relational crafting, Cognitive crafting, Task crafting, Observe, Describe, Act with awareness, Accept without judgement and Age.

In order to test the regression hypotheses, the variables were the followings:

- Independent variables: Observe, Describe, Act with awareness, Accept without judgement and Age.
- Dependent variables: Act with awareness, Accept without judgement, Relational crafting, Cognitive crafting, Task crafting.

3. RESULTS

In the table 1 it can be observed the Alpha Cronbach coefficients and the 95% Confidence Interval for the job crafting questionnaire. The values are above the significance threshold.

Table 1 – Alpha Cronbach coefficients for the job crafting questionnaire

The variable	Alpha Cronbach	95% Confidence Interval		The significance threshold
Relational crafting	.889	.823	.936	>.70
Cognitive crafting	.906	.847	.947	>.70
Task crafting	.798	.678	.885	>.70

In the table 2 it can be seen the descriptive statistics for the variables: Relational crafting, Cognitive crafting, Task crafting, Observe, Describe, Act with awareness, Accept without judgement.

Table 2 – Descriptive statistics (N=36)

The variable	Minimum	Maximum	Mean	Std. Deviation
Relational crafting	19	63	35.750	11.816
Cognitive crafting	15	35	27.666	4.720
Task crafting	5	25	20.000	4.732
Observe	12	35	24.972	6.101
Describe	28	59	42.138	6.727
Act with awareness	22	35	26.277	2.854
Accept without judgement	23	40	31.194	3.600

After the data collection the hypothesis were tested using the program SPSS.

In the table 3 it can be observed that the correlation coefficients are strong positive and statistically significant between the dimension of the mindfulness questionnaire: Observe, Describe, Act with awareness, Accept without judgement.

Table 3 – Correlation matrix (Mindfulness dimensions)

	Observe	Describe	Act with awareness
Observe	1	r =.894 (p>.05)	r=.527** (p<.05)
Describe	r=.279 (p>.05)	1	r=.445* (p<.05)
Act with awareness	r=.527** (p<.05)	r=.445** (p<.05)	1
Accept without judgement	r=.493** (p<.05)	R=.029 (p>.05)	r=.202 (p>.05)

In the table 4 we can see the positive strong and statistically significant correlations between the variables: Task crafting, Cognitive crafting, Relational crafting.

Table 4 – Correlation matrix (Job crafting dimensions)

	Task crafting	Cognitive crafting	Relational crafting
Task crafting	1	r = .503**	r=.509**
Cognitive crafting	r = .503**	1	r = .535**
Relational crafting	r=.509**	r=.535*	1

The hypotheses regarding the bivariate correlations between the mindfulness dimensions and job crafting dimensions were not confirmed at the threshold of p<.05. Furthermore, there were medium correlation coefficients as interpretation (between .30 and .50 medium degree of correlation) between the variables: Describe and Task crafting (r=.30; p=.076>.05), Describe and Cognitive crafting (r=.328; p=.095>.05) and Describe and Relational crafting (r=.324; p=.054>.05).

Regarding the prediction hypotheses "We assume that age predicts statistically significant the accept without judgment", the variable age predicted statistically significant negative the accept without judgment.

In the table 5 we can be see the R and R Square values for the regression model.

Table 5 – Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.357[a]	.128	.102	8.086

a. Predictors: (Constant), Age

In the table 6 the coefficients of the linear regression equation can be analyzed.

Table 6 – Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36.140	4.350		8.309	.000
	Age	-.258	.116	-.357	-2.230	.032

a. Dependent Variable: Accept without judgment (Mindfulness)

Applying the linear regression model, the regression equation is the following:

Accept without judgment = 36.140-.258* Age

Hence, the hypothesis has been confirmed for the statistically significant threshold p<.05.

The hypothesis "We assume that age predict statistically significant the observe dimension of mindfulness" was not confirmed.

4. CONCLUSIONS

The research hypotheses were partially confirmed at the statistically significant threshold p<.05. Testing the correlation hypotheses were obtained high but not statistically significant bivariate correlation coefficients for the group of 36 participants between the variables: Describe and Task crafting (r=.30; p=.076>.05), Describe and Cognitive crafting (r=.328; p=.095>.05) and Describe and Relational crafting (r=.324; p=.054>.05).

Describe as mindfulness dimension, involves describing, labelling or noting experiences by explaining experiences and sensations in words. As can be seen, the correlation coefficients are medium as interpretation but are not statistically significant. One reason is due to the fact that the sample is small, 36 participants. In this sense, it is recommended to apply on a large group of over 100 participants. Mindfulness can be helpful at workplace due to organize the work process, tasks and work relationship and communication. According the job crafting questionnaire the relational crafting highlights the relationships with colleagues, helping the new employee, organizing parties, making friends and networking activities.

Regarding the confirmed prediction hypotheses, the variable age predicted statistically significant negative the accept without judgement (p<.05). One explanation is that with age, the years of work experience increase and acceptance without judgment decreases. According the mindfulness questionnaire the dimension acceptance without judgment evidence to allow reality or what exists, to be as it is without judgment.

Judgment and experience at workplace are very important in decision making and also in communication and relationships.

Further studies should focus on investigating the relationship between age, work experience, well-being, quality of life, job crafting, communication and performance.

REFERENCES

Baum, C., Kuyken, W., Bohus, M., Heidenreich, T., Michalak, J., & Steil, R. (2010). The Psychometric Properties of the Kentucky Inventory of Mindfulness Skills in Clinical Populations. *Assessment, 17*(2), 220–229. https://doi.org/10.1177/1073191109356525

Baer, R. A., Smith G. T., & Allen, K. B. (2004). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment, 11*, 191-206.

Berg, J. M., Dutton, J. E., & Wrzesniewski, A. (2013). Job crafting and meaningful work. In B. J. Dik, Z. S. Byrne, & M. F. Steger (Eds.), *Purpose and meaning in the workplace* (pp. 81–104). American Psychological Association. https://doi.org/10.1037/14183-005

Hansen, E., Lundh, L. G., Homman, A., & Wångby-Lundh, M. (2009). Measuring mindfulness: pilot studies with the Swedish versions of the Mindful Attention Awareness Scale and the Kentucky Inventory of Mindfulness Skills. *Cognitive behaviour therapy, 38*(1), 2–15. https://doi.org/10.1080/16506070802383230

Höfling, V., Moosbrugger, H., Schermelleh-Engel, K., & Heidenreich, T. (2011). Mindfulness or mindlessness?: A modified version of the Mindful Attention and Awareness Scale (MAAS). *European Journal of Psychological Assessment, 27*(1), 59–64. https://doi.org/10.1027/1015-5759/a000045

Höfling, V., Ströhle, G., Michalak, J., & Heidenreich, T. (2011). A short version of the Kentucky Inventory of Mindfulness Skills. *Journal of clinical psychology, 67*(6), 639–645. https://doi.org/10.1002/jclp.20778

Medvedev, O. N., Bergomi, C., Röthlin, P., & Krägeloh, C. U. (2019). Assessing the psychometric properties of the Comprehensive Inventory of Mindfulness Experiences (CHIME) using Rasch analysis. *European Journal of Psychological Assessment, 35*(5), 650–657.https://doi.org/10.1027/1015-5759/a000453

Moghimi, Darya & Scheibe, Susanne & Van Yperen, Nico. (2017). *Job Crafting in Aging Employees. 10.*1007/978-981-287-082-7_29.

Nicastro, R., Jermann, F., Bondolfi, G., & McQuillan, A. (2010). Assessment of mindfulness with the French version of the Kentucky Inventory of Mindfulness Skills in

community and borderline personality disorder samples. *Assessment, 17*(2), 197–205. https://doi.org/10.1177/1073191110363551

Nielsen, K., Antino, M., Sanz-Vergel, A. & Rodríguez-Muñoz, A. (2017). Validating the Job Crafting Questionnaire (JCRQ): A multi-method and multi-sample study. *Work & Stress, 31*(1), 82-99, DOI:10.1080/02678373.2017.1293752

Podsakoff, P. M., Ahearne, M., & MacKenzie, S. B. (1997). Organizational citizenship behavior and the quantity and quality of work group performance. *Journal of Applied Psychology, 82*(2), 262–270. https://doi.org/10.1037/0021-9010.82.2.262

Schachler, V., Epple, S.D., Clauss, E., Hoppe, A., Slemp, G.R. & Ziegler, M. (2019). Measuring Job Crafting Across Cultures: Lessons Learned from Comparing a German and an Australian Sample. *Frontiers in Psychology, 10,* 991. doi: 10.3389/fpsyg.2019.00991

Slemp, G. R., & Vella-Brodrick, D. A. (2013). The job crafting questionnaire: A new scale to measure the extent to which employees engage in job crafting. *International Journal of Wellbeing, 3*(2), 126-146. doi:10.5502/ijw.v3i2.1

Warr, P. (1990). The measurement of well-being and other aspects of mental health. *Journal of Occupational Psychology, 63*(3), 193–210. https://doi.org/10.1111/j.2044-8325.1990.tb00521.x

Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review, 26,* 179–201.

INFLUENCE OF UNEMPLOYMENT ON THE PSYCHOLOGICAL HEALTH OF UNEMPLOYED YOUTHS IN LAGOS STATE, NIGERIA.

MESSIGAH, GEORGINA [a], HASSAN, AJOKE [b,] AJIBOYE, BOLANLE [c]

[a] *University of South Africa, College of Human Science, Department of Psychology, Pretoria*
[b] *National Space Research and Development Agency, Centre for Satellite Development and Technology, Nigeria*
[c] *Women's Support Network of York Region, Department of Trauma and Counselling, Canada*

Abstract

The study, examined the influence of unemployment on the psychological health of youths in Lagos State, Nigeria. The descriptive inter-correlations hypothesis showed significant relationship between unemployment and low self-esteem, suicidal ideation depression, irrational thoughts/behavior and negatively correlated with perseverance (Grit).

Method: The purposive sampling and criteria-based techniques were used for the study. The sample size comprised of three hundred and ninety (380) unemployed youths within the age bracket of 18-35 (Male = 221, Female =159), and data was collected using a self-report questionnaire. The procedure adhered to the principles of the human participant and clearly explained the nature of the study

The results of simple linear regression showed the partially correlation and prediction hypotheses were confirmed. It was recommended that relevant institutions in the public sector and government bodies should re-strategize, prioritize, and adopt youth-inclusive criteria by which employment levels can be improved in the country and further research directions were discussed.

Keywords: Depression, low self-esteem, unemployment, suicide ideation, perseverance

1. INTRODUCTION

The term 'unemployment' as defined by (Adebayo, 1999, p. 185) is a state in which skilled individuals do not have jobs or are constantly in search of one for salary or income. It has unquestionably become one of the greatest challenges globally (Anyanwu, 2014) and typically increases during a recession with adverse effects on the economy. Some of its effects are an increase in insufficiency, pressure

Corresponding author: Messigah Georgina

E-mail address: yemisi_messigah@yahoo.om

and distortions, labour reduction mobility, promotion of social/civil unrest and conflicts.

It has become a subject of discussions in Nigeria (Ajufo, 2013) despite the country being an enabling environment for businesses, accommodating investors across the world. It is further considered a major challenge obstructing the peace and security of the country with its skyrocketing rate in the past few years. Its major effect is its disruption on youths' lives with consequences such as substance dependency, depression, crimes, and anti-social behaviour (Ajufo, 2013). The National Bureau of Statistics (2019), averaged youth unemployment in Nigeria at 23.63 percent as of 2014 to 2018, with an all-time high of 38 percent in the second quarter of 2018 and a record fall of 11.70 percent in the fourth quarter of 2014.

This situation in Nigeria has tremendously deteriorated by the current overall financial crises affecting industries and the hope for youth (Fanimo & Olayinka, 2009). The outcome of being unemployed is characterized by various components namely; homelessness, insecure environments, segregation, hunger, and poor health conditions, improved morbidity and mortality from illnesses, and mental illness (Davids, 2010).

The reports of unemployment resulting from the substantial economic decline in Nigeria have shown adverse effects on youth psychological well-being such as despondency, depression, suicide, and sometimes, crime (Paul & Moser, 2009, David & Vicente, 2012) as well as their physical and intellectual performance (Breslin & Mustard, 2003). Unemployment is consistently associated with low psychological health with an increased vulnerability to psychiatric disorders (Mckee-Ryan, Kinnicki, Song & Wanberg, 2005). It is more firmly established that unemployment influences the cause and prognosis of those with pre-existing psychiatric disorders which in turn leads to reduced employability (Mark & Paul, 2011).

The consequences of unemployment are not as minimal as those associated with a long period of unemployment experience but not limited to financial setbacks, reduced self-confidence, and poor psychological and emotional strength (Amissah & Nyarko, 2017). Another impact linked with the mental well-being of an unemployed person is spirituality as a coping mechanism in dealing with a mental and emotional breakdown, period of disconnect, and helplessness. (Piedmont, Werdel & Fernado, 2009). Hence, the ability to use perseverance through religion in analyzing difficult situations as a part of human life and existence (Lawler-Row & Elliot, 2009).

1.1 Theoretical Approach: Ecological System Theory

This study adopted the ecological system framework by Bronfenbrenner (1979, 1992) whose theory does not only allow instructors, physicians, and researchers to understand the experience of an individual in a state of unemployment but helps

them gain in-depth knowledge on how environmental system and growth can impact youth unemployment.

The ecosystem theory consists of five levels of interaction that the past is nested in the future:

(1) Microsystem (2) Mesosystem (3) Exosystem 4) Macrosystem, and (5) Individual trait (Chronosystem).

Since the inception of the theory, it has been applied in various fields of study such as youth developmental process (Darling, 2007), child's mental health (McLeod & Shanahan, 1993), suicidal ideation (Langhinrichsen-Rohling, Snarr, Slep, Heyman, & Foran, 2011) and in describing youth unemployment while reflecting on the environmental effects on human behaviour (Barbalat & Frank, 2020). The concept of youth unemployment can be linked at different levels, namely, microsystem, exosystemic, and Chronosystem (Individual) in a specific setting (Shelton, 2019). This would give a better understanding of individual and contextual factors affecting youth unemployment

Microsystem**:** This refers to the interpersonal relationships, activities, and roles that directly impact a person's development in a given setting such as institution, religion, family, friends, etc. (Bronfenbrenner, 1979). In the educational institution, the most important need of a student is proper guidance and counselling especially in the area of study and career choices. However, institutions in Nigeria do not make efforts to guide students in choosing desired or careers that are in demand for graduates (Obinwanne, 2019). So, it is likely to affect positive mind-set and psychological health of the unemployed youths' that some of the qualifications obtained are not in sync with positions required hence the difficulty in gainful employment.

Exosystem: This refers to social structures, both formal and informal, that individuals do not have an active role in the immediate settings, and thereby influence one's experience or decisions. (Bronfenbrenner, 1979). The influential structures for unemployed youths in Nigeria may include the political system, lack of quality curriculum and education, flawed government policies on youth unemployment, and health system etc. This suggests failure from the leaders (politicians) by not creating jobs and setting a quality standard of education as promised or manifested. Hence, the increase in the number of unemployed youth, reliance, and dependence on family support, the propensity to crime, and determinants of psychological health and illness (Feldman, 2002).

Lastly, the **Individual** refers to the personality trait through which the person perceives the world such as sex, age, temperament, health, etc. (Bronfenbrenner, 1992; Shelton, 2019). Individual play a role with regards to employment as personality's trait affects hiring qualities which might make or mar work performance or employment possibility. For example, 'temperament' might be an inhibiting factor (Jiji, 2012), likewise age, gender, and health instability (Makama,

2013,). It is crucial to be conscious of reality as an impact of reaction to unemployment on youths' psychological health and subsequently the period as well as the process. The period of unemployment is critical given that individual traits and experiences may strengthen stigmatization, isolation resulting in the low psychological health of the unemployed.

Three Bronfenbrenner's (1992) ecological system approach was explored, 1) academic advisor, family and friends as sources of support in microsystem 2) policy influence in exosystem and 3) perceptions of personality traits in individual (chronosystem). Each of the phases shed guidance on understanding the influence of unemployment on the psychological health of unemployed youths.

2. OBJECTIVE AND HYPOTHESES

2.1. OBJECTIVE
The objectives of the research are as follows:
1. To understand the psychological effect of unemployment
2. To highlight the possible correlations between the following variables: low self-esteem, depressions, suicidal ideation, perseverance and irrational thoughts
3. To evidence that unemployment affect youth perseverance
4. To confirm that unemployment predicts the variables, low self-esteem, depressions, suicidal ideation, and irrational thoughts

2.2. HYPOTHESES
The research hypotheses are the following:
1: There is a significant correlation between unemployment and the variables low self-esteem, depressions, suicidal ideation, perseverance and irrational thoughts.
2: Unemployment will positively predict youth ability to persevere
3: Each of the psychological health variables: depression, low self-esteem, suicidal and irrational thoughts negatively predict unemployment

3. METHOD

3.1 The participants
The study population is the unemployed youth of Lagos State. The participants for this study comprised 380 unemployed participants in Lagos, between the ages of 18 and 35 (M= 30.85, SD= 2.83). The reason for participants' selection ages is that they constitute about 40-60 percent of the more than 14 million persons in Lagos and the minimum qualification was a bachelor's degree with Master's as the highest. The study required at least a bachelor's degree as it is the common requirement and route to skilled employment.

The purposive and criteria based sampling techniques were employed in the selection process to ensure active recruitment with a focus on individuals with specific research interests to aid appropriate research outcomes (Willemse, 2015). Unemployed youths are young people (between the ages of 18-35), who have not been employed for a period not less than two years. A total of 159 (41.8%) were female and 221 (58.2%) were male in the study.

3.2 The Instruments

The standardized questionnaires were used as the instrument for data collection. The demographic section of the questionnaire contained questions such as age, gender, marital status, work status, educational qualification, and length of unemployment. Items in this questionnaire were adapted from Rosenberg's Self-Esteem Scale (Rosenberg, 1965), General Health Questionnaire (Goldberg 1972) for screening psychological health (Dustmann & Fasani, 2016; Lídia, Francesco, & Hannes, 2018), and Depression Anxiety Stress Scale (Lovibond & Lovibond 1995) for overall mood and cognitive state.

1. Rosenberg's Self-Esteem Scale (Rosenberg, 1965) is a 10-item scale that is used to measure individual self-esteem with a standardized Cronbach alpha range of 0.79 to 0.86. Some items in this scale are "I take a positive attitude toward myself", "I certainly feel useless at times," and "I feel that I have a number of good qualities." Responses are provided and scored using a 4 point Likert scale ranging from "Strongly Agree" with 4 Point, "Agree" 3point,"Disagree" 2 point, "Strongly disagree" with 1 point. While items 2, 5, 6, 8, 9 on the scale are reversely scored. From "Strongly Disagree" 1 point, "Disagree" 2 points, "Agree" 3 points, and "Strongly Agree" 4 points. The score ranges from 10 (lowest) to 40 (highest).

2. General Health Questionnaire (Goldberg 1972) is used to measure minor symptoms of psychological problems that assess respondent's current state. The 28 item self-report has four (4) subscales with each containing seven (7) items that examine symptoms associated with depression, hopelessness/suicide ideation, social dysfunction, positive thinking (perseverance) and negative thoughts. The reported Cronbach alpha reliability coefficient for GHQ ranges from 0.82 to 0.86. The sub sectional reliability coefficient were somatic indicator (alpha = 0.83); suicidal ideation/severe hopelessness (alpha= 0.81); Insomnia/thought distortion (alpha = 0.72); and social dysfunction (alpha =0.76) respectively. Each response was scored on a 4 point Likert scale from "Not at all" with 0 point, "No more than usual" 1 point, "Rather more than usual" 2 point and "Much more than usual" 3 point. Sample items on this scale are "I have been feeling perfectly well and in good health," I have been getting edgy and bad tempered," "I felt I am doing things well" and "I found the ideas of taking your own life kept coming to mind". The total score of all items ranged from lowest (0) to highest (84). So the higher the score the more severe the condition.

3. Depression Anxiety Stress Scale (Lovibond & Lovibond 1995) is a 21 items is a set of three (3) self-report scales used to measure the emotional states of depression, anxiety and stress in an individual. The reported Cronbach alpha for DASS subscale reliability coefficient were with a values of 0.81, 0.89 and 0.78 with excellent internal consistency and validity for depression, anxiety and stress respectively. Each contains seven (7) items that measures symptoms such as hopelessness, devaluation of life, lack of interest and inertia on the depression scale. The anxiety scale measures symptoms as skeletal muscle effects, automatic arousal and situational anxiety while stress scale measures symptoms such as irrational behaviour, impatient, easily upset and difficulty relaxing. Some items on the scale are "I couldn't seem to experience any positive feeling at all," "I wasn't worth much as a person," and "I tended to over-react to situations," Responses was scored on a 4 point Likert scale as follows: "Did not apply to me at all" 0 point, "Applied to me to some degree" 1 point, "Applied to me to some degree" 2 point and "Applied to me very much" with 3 point. The total score are multiplied by 2 and are labelled from normal (0-9 "depression", 0-7 "anxiety" and 0-14 "stress") moderate (14-20 "depression" anxiety "10-14" and stress "19-25") Severe (depression "21+" anxiety "15+" stress "26+").

3.3 Procedures

The descriptive statistics such as frequency count, simple percentages, mean, and standard deviation were generated in presenting the results. The Epi Info Version 3.5.1 was used for the data coding and exported into Statistical Package for Social Sciences (SPSS) version 20.0 for analyses. To determine the relationship between variables, researchers employed the Pearson's (r) correlation coefficient, and linear regression were used to significantly determine variables predictions variance in the study. A total of 400 questionnaires was prepared and administered by researchers to participants of the study. Out of which 388 were retrieved, however, 380 were duly completed and considered valid for the quantitative analysis. The procedure adhered to the principles of the human participant and clearly explained the nature of the study therefore, only those who volunteered and signed the 'informed consent form' participated, and agreed, the data to be computed and the results to be published in an international journal.

3.4 The design

The study employed a descriptive research design. The variables for the regression models were:

Independent variable: unemployment

Dependent variables: low self-esteem, depressions, suicidal ideation, perseverance and irrational thoughts

4. RESULTS

Result in table 1 showed the Pearson *r* inter-correlation analysis of the psychological health variable to determine their strength and relationships

Table.1 Descriptive statistics and correlations

Variables	M(SD)	1	2	3	4	5	6
Unemployment	3.72(.45)	-					
Low self-esteem	3.03(.67)	.29**	-				
Suicidal ideation	3.75(.33)	.22**	.19**	-			
Depression	3.74(.35)	.18**	.22**	.94**	-		
Perseverance	3.68(34)	-.05**	.65**	.69**	.64**	-	
Irrational thoughts/behaviour	3.02(.62)	.25**	.58**	.42**	.78**	-064**	-

Significant at **$p<0.01$, $p<0.05$

Testing hypothesis one in table 1, matrix of bivariate correlation of the variables revealed significant relationship with each other except perseverance. Unemployment has a significant relationship with low self-esteem ($r= 0.29$, $p<0.01$), suicidal ideation ($r= 0.22$, $p<0.01$), depression ($r=0.18$, $p<0.01$), irrational thoughts/behaviour ($r=0.25$, $p< 0.05$) and negatively with perseverance (Grit) ($r= -0.05$, $p>0.05$).

Although a negative relationship emerged with perseverance (attitude of grit) and the overall effect of unemployment on youth among variables of the study. This shows that unemployed youth are more likely to adopt a negative attitude and become more psychologically down in their condition than to persevere. Therefore, it is not surprising that unemployment had a negative correlation with perseverance.

For the rest of the hypothesis the simple linear regression models were applied. Hence, the following results were obtained:

1. Testing the second hypotheses "unemployment will positively predict youth ability to persevere" it was confirmed for R=.049, p>.05. The simple linear regression model is the following: Perseverance = 3.952 -.063* unemployment

2. Testing hypothesis three "predicting each psychological health variables negatively on unemployment".

For "unemployment predicts depression" it was confirmed for R=.183, p<.01. The linear regression equation is the following:

Depression = 2.828 +.238* unemployment

For "Low self-esteem and unemployment" it was confirmed for R= .298, p<.01. The simple linear regression equation is the following:

Low self-esteem = 3.113 +.200* unemployment

For "youth unemployment predicts suicidal ideation" it was confirmed for R=.212, p>.01. The simple linear regression equation is the following:

Suicide ideation = 2.616 +.294* unemployment

For "unemployment negatively predicts irrational thoughts" it was confirmed for R=.252, p<.01. The regression equation is the following:

Irrational thought = 3.168 +.182* unemployment.

Regarding the prediction models, the hypotheses were confirmed that low self-esteem, depression, suicidal ideation, and irrational thought was found to negatively statistically significantly predict unemployment for p<.01 and positively not significant with perseverance p>.05. Results confirmed literatures in the introduction that unemployment significantly cause poor psychological health such as low self-esteem, irrational thoughts and depression. This finding is in line with the Bronfenbrenner's theory that the microsystems interact with each other. For example, to strengthen and propel unemployed individual for success psychologically, family and friends could create a safe place socially or at home where these individuals feel comfortable to express their feelings and emotions.

According to the results and previous studies youth have become vulnerable to suicidal thoughts since such negative thoughts occur when an unemployed person is psychologically depressed which is related to the study conducted by Boden, Fergusson & Horwood (2014) that unemployment sometimes leads to suicide attempts contributing to social insecurity and all sorts of undesirable behaviours. This emanates from the hope of good employment upon graduation, a better life, enabling environment and a good future getting watered down over the years. The findings also confirmed Bronfenbrenner's theory that the ecosystems influences ones behaviour, experience and decisions.

Analyzing these results in this study confirmed Bronfenbrenner theory that the chronosystem (individual) personality traits help to better understand and manage the issues of psychological health during unemployment. Arguably, this result should be interpreted with caution, which mean, individual difference play a huge role in people's response to unemployment.

5. CONCLUSIONS

The study concludes that youth unemployment significantly correlates with low self-esteem, depression, suicidal ideation, and irrational thought which confirms the primary research hypothesis. Youth unemployment has a substantial significant adverse effect on psychological health. Therefore, the state's leadership needs to play a critical role in adequately growing and shaping the economy, job creation policies, and programs that will ultimately avail opportunities to realize their potentials in the work environment rather than constantly struggling to get employed. Also, based on the fast declining economy and hardship, youth unemployment should not be overlooked. On the bases of the findings, it was recommended that the need for health care facilities and rapid special health-promoting measures for unemployed youth experiencing low self-esteem, depression, suicidal ideation, and other psychological issues be made generally available.

Further studies could focus on exploring range of essential supports unemployed individuals requires; as well as to ascertain the psychological effects of youth unemployment comparing previously employed and never being employed youth so that useful information can be gathered for the improvement of social interventions to help unemployed individuals cope better. Also, relating psychological health to other variables such as financial stress, nepotism, anxiety, spirituality, social and family expectation to youth unemployment.

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REFERENCES

Adebayo, A. (1999). Youth Unemployment and National Directorate of Employment and Self-Employment Programmes. *Nigerian Journal of Economics and Social Studies*, 41(1), pp.81-102.

Ajufo, B. I. (2013). Challenges of Youth Unemployment in Nigeria: Effective Career Guidance as a Panacea. *An International Multidisciplinary Journal, Ethiopia* Vol. 7 (1), pp: 307-32

Anyanwu, J. C. (2014). Does intra-African Trade Reduce Youth Unemployment in Africa, in: *African Development Review*, (26), 2, pp.286-309.

Amissa, C.M., & Nyarko, K. (2017). Psychological Effects of Youth Unemployment in Ghana. *Journal of Social Sciences,* 13 (1): pp. 64.77

Barbalat G, & Franck, N (2020). Ecological study of the association between mental illness with human development, income inequalities and unemployment across OECD countries. *BMJ Open*; 10:e035055.

Boden, J.M., Fergusson, D.M., Horwood, L.J., (2014). Associations between exposure to stressful life events and alcohol use disorder in a longitudinal birth cohort studied to age 30. *Drug Alcohol Dependence* Vol.142, pp.154-160.

Breslin, F.C., & Mustard, C. (2003). Factors influencing the impact of unemployment on mental health among young and older adults in a longitudinal, population-based survey. *Scandinavian Journal of Work Environment and Health*, Vol. 29, pp. 5-14.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. American Psychologist, 32(7), 513–530.

Bronfenbrenner, U. (1992). Ecological systems theory. In R. Vasta (Ed.), *Annals of child development. Six theories of child development: revised formulations and current issues* (pp. 187–249). London: Jessica Kingsley

David, C., & Vicente, R. (2012). Unemployment and long-run economic growth: the role of income inequality and urbanization. *Journal of regional Research*.

Davids, Y.D. (2010). *Explaining poverty: A comparison between perceptions and conditions of poverty in South Africa*. Stellenbosch: University of Stellenbosch.

Dustmann, C., & Fasani, F. (2016). The Effect of Local Area Crime on Mental Health. *Econ J* Vol. 126(593): pp. 978–1017

Fanimo, D., & Olayinka, C. (2009). Tackling unemployment challenges in Nigeria. *Guardian Newspapers*, April 28.

Feldman, D.C. (2002). A Relative Deprivation Approach to understanding Underemployment. *Organizational Psychology* 61 (14), pp 67-75

Goldberg, D.P. (1972). *The Detection of Psychiatric Illness by Questionnaire*. Oxford University Press, Oxford.

Goldberg, D.P., Gater, R., Sartorius, N., Ustun, T.B., Piccinelli, M., Gureje, O., Rutter, C. (1997). The validity of two versions of the GHQ in the WHO study of mental illness in general healthcare. *Psychology Medicine* Vol. 27(1), pp.191–197.

Jili, N.N. (2012). *The perceptions of youth service delivery on violence in Mpumalanga province.* (Unpublished MPA). KwaDlangezwa: University of Zululand.

Langhinrichsen-Rohling, J., Snarr, J. D., Slep, A. M. S., Heyman, R. E., & Foran, H. M. (2011). Risk for suicidal ideation in the U.S. Air Force: An ecological perspective. *Journal of Consulting and Clinical Psychology*, 79(5), pp.600-612.

Lawler-Ross, K.A., & Elliot, J. (2009). The role of religious activity and spirituality in the health and wellbeing of older adults. *Journal of Health Psychology*. Vol. 14, pp.43-52

Lovibond, S.H., & Lovibond, P.F. (1995). *Manual for the Depression Anxiety Stress Scales (2nd ed)*. Sydney: Psychological Foundation.

Makama, G.A (2013). Patriarchy and gender inequality in Nigeria: The way forward. *European Scientific Journal* 9 (17) pp.115-144.

Mark, N.S & Paul, E.M (2011).Health Consequences of Youth Unemployment. *Australian and New Zealand Journal of Psychiatry*, Vol. 19(4), pp. 427-434

Mckee-Ryan, F., Kinicki, A., Song, Z., & Wanberg, C. R. (2005). Psychological and physical well-being during unemployment: a meta-analytic study. *Journal of Applied Psychology, 90*(1), 53-76.

National Bureau of Statistics. (2019). *Nigeria Youth Unemployment Rate*. https://tradingeconomic.com (Accessed 17 June 2019)

Nunnally, J.C., (1978). *Psychometric Theory. 2nd Edition*, McGraw-Hill, New York, ISBN-10: 0070474656, pp: 701.

Nyarko, K. and C.M. Amissah, (2014). Cognitive distortions and depression among undergraduate students. *Research. Humanities. Soc. Sci*., 4: pp.69-75

Obinwanne Umunna (2019). *Top Eight jobs with high employment chances for fresh graduates*. http:// www.topwritersden.com (Accessed 25 August 2019)

Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton, NJ: Princeton University Press

Paul, K. I., and Moser, K. (2009). Unemployment impairs mental health: meta-analyses. *Journal of Vocational Behaviour* Vol. 74(3), pp. 264-282.

Piedmont, R.L., Werdel, M.B., & Fernando, M. (2009). The utility of the Assessment of Spirituality and Religious Sentiments (ASPIRES) Scales with Christians and Buddisht in Sri Lanka. *Research in the Social Scientific Study of Religion*, Vol.2, pp.131-144.

Shelton, L.G. (2019). The Bronfenbrenner Primer: *A guide to Develecology*. New York, NY: Routledge.

Willemse, R.P. (2015). *The perceived impact of unemployment on psychological well-being among unemployed young people in Worcester*. (Unpublished M.A.) Pretoria: University of South Africa.

SECONDARY SCHOOL TEACHERS' AWARENESS AND APPLICATION OF VOCABULARY INSTRUCTIONAL STRATEGY FOR TEACHING BASIC SCIENCE IN AWKA SOUTH, NIGERIA

NWUNE, EMMANUEL CHIBUIKE[a] OBIALOR, CHRIS OKWUCHUKWU[a]
[a]*Nnamdi Azikiwe University Awka, Faculty of Education,
Department of Science Education*

Abstract

The study investigated secondary school teachers' awareness and application of vocabulary instructional strategy for teaching Basic Science in Awka South, Nigeria. Two research questions guided the study. The study made use of the survey research design. The sample of the study constituted of all the 60 Basic Science teachers in the 19 government-owned/public secondary schools in Awka South Local Government Area of Anambra State, Nigeria. The instrument titled Awareness and Application of Vocabulary Instructional Strategy Questionnaire (AAVISQ) with a reliability coefficient of 0.83 was used to collect data for the study. Percentage and arithmetic mean were used to answer the research questions. The findings from the study showed that the Basic Science teachers were aware of the vocabulary instructional strategy and also applied it in their teaching of Basic Science in secondary schools in Awka South. The researchers concluded from the findings of the study that students' poor performances in Basic Science both in internal and external examinations cannot be linked to the Basic Science teachers' lack of awareness and application of innovative teaching strategies such as the vocabulary instructional strategy, since the findings show that the Basic Science teachers were not only aware of this strategy but also apply it in their teaching of Basic Science for the optimum academic performance of the students.

Keywords: *Basic Science, vocabulary instructional strategy, secondary school, teachers, students.*

1. INTRODUCTION

Education has been the pillar and the foundation of development for most countries of the world and this is because it facilitates both economic and social

Corresponding author: Nwune, Emmanuel Chibuike

E-mail address: ce.nwune@unizik.edu.ng

growth and development of any nation. According to Omiko (2016), formal education was introduced into Nigeria by foreign missionaries in the year 1842 and this form of education placed emphasis on reading, writing and arithmetic. This formal education proceeded into the pre-primary, primary, post-primary/secondary and tertiary levels, with science education taught in one form or the other at each of these levels. Science education is the field of education that fosters the scientific and technological development of any nation. According to Alebiosu and Ifamuyiwa (2008), science education is seen as the gateway to the scientific and technological survival of any nation and that it also plays a significant role in the lives of citizens of the nation. Science education is widely acknowledged to be the escape route to the development of Nigeria and this led to its incorporation into the foundational level (primary and post-primary/secondary) curriculum of Nigeria's educational system to be taught as Basic Science amongst others.

Ezeoguine and Amaechi-Udogu (2019) defined Basic Science as a sophisticated tool needed for scientific and technological development as well as a good understanding of the world around us. Fajemidagba (2014) posited that Basic Science plays a significant role in objectivity and accurate communication of research findings in scientific work. Omotayo, Ihebereme and Maduewesi (2016) asserted that Basic Science help chart careers for students in areas of aviation, communication, computer, engineering, to mention but a few and also help in transforming human lives.

According to the Nigerian Educational Research and Development Council (NERDC, 2012), the objectives of Basic Science now called Basic Science and Technology after the revision of the nine-year Basic Education Curriculum by the Federal Government of Nigeria should be directed at enabling students who are exposed to the curriculum to acquire the following:

1. develop interest in science and technology, acquire basic knowledge and skills in science and technology
2. apply scientific and technological knowledge and skills to contemporary societal needs
3. take advantage of the numerous career opportunities provided by science and technology
4. become prepared for further studies in science and technology
5. avoid drug abuse and related vices and
6. be safety and security conscious

These objectives however, has not been achieved as evident in the academic performance of students in Basic Science and Technology at the Basic Education Certificate Examination (BECE) of Anambra State from 2015 to 2019 as presented in the table below.

GRADE \ YEAR	DISTINCTION %	CREDIT %	PASS %	FAIL %
2015	8.05	38.02	45.08	8.86
2016	3.84	45.50	46.88	3.68
2017	2.43	43.84	49.97	3.77
2018	4.47	43.20	47.69	4.65
2019	2.44	46.64	48.23	2.69

Source: Examination Development Center, Ministry of Education Awka, Anambra State (2020).

Many researchers have attributed students' poor performances in Basic Science to quite a number of factors. For example, Afuwape and Olugbuyi (2019) have attributed it to the difficult nature of the subject, others (Oludipe, 2012; Ayibatonye & Ikechi, 2018) attributed students' poor performance in Basic Science to students' related factors. Some researchers on the other hand, have attributed the poor performance of students in the subject to poor and inadequate teaching and learning facilities, inadequate laboratories as well as the teachers handling the subject (Ayibatonye & Balafama, 2017; Umar & Samuel, 2018).

The teacher is the primary executor of every educational policies/action plans in the classroom; he/she is responsible for affecting students' cognitive, affective and the psychomotor domains. Okolocha and Onyeneke (2013) defines the teacher as one who plans, organizes, designs, directs, motivates and inspires students to learn using standard teaching strategies to impart knowledge to the students. According to them, it is the duty of the teacher to implement educational reforms in the classroom through the use of effective teaching strategies and these reforms when implemented could lead to the achievement of teaching objectives which would by extension improve students' performances in school subjects. Literature (Ezeliora, 2004; Talbert-Johnson, 2004; Nwosu, 2004) has shown that students' poor academic achievement in school subjects are majorly drawn from the teachers' use of inadequate/inappropriate teaching strategies for teaching. A teaching strategy according to Achor, Samba and Ogbeba (2010) is simply an approach, method or a combination of carefully designed classroom interactions that could be followed meticulously to teach a topic, concept or an idea. There are many teaching strategies a teacher could use in the classroom for effective teaching but for the purpose of this study, the vocabulary instructional strategy would be considered.

The vocabulary instructional strategy is a teaching strategy that involves the teaching of word(s) meaning in order to stimulate learners' understanding of concepts or ideas represented by the word(s). Vocabulary instruction according to Reutzel and Cooter (2013) is defined as "teaching word meanings and how one determines word meanings from an understanding of word parts or word clues

when available" (p. 216). There are generally two types of vocabulary instructional strategy that can be used to teach students: The implicit vocabulary instructional strategy and the explicit vocabulary instructional strategy. The implicit vocabulary instructional strategy can be defined as the strategy that entails learning word(s) meaning without awareness. It occurs when the mind of the learners are concentrated elsewhere, such as on understanding a written text or spoken material. In this strategy, participants are involved through the retention of information incidentally (Marzban & Kamalian, 2013). It is an indirect means of learning vocabulary. The explicit vocabulary instructional strategy on the other hand is defined as the strategy that entails learning word(s) meaning with awareness. It is used to engage learners in activities that focus their attention primarily on word(s). The explicit vocabulary instruction occurs when the teacher selects certain content words bordering around the lesson or topic of the day and teach them in-depth as the focus of the lesson. This allows the student to acquire the knowledge needed to understand the lesson/topic in context (Hanson & Padua, 2011). Researchers (Kame'enui & Baumann, 2012; Kamil, et al., 2008) have shown the importance of teachers' use of vocabulary instructional strategy in facilitating high levels of academic performance in students.

Horst (2005) and Macaro (2006) posited in their studies that vocabulary can be acquired by students from their teachers using the implicit approach, while Hiebert, Hiebert and Lubliner (2008) opined that academic vocabulary are acquired by students from the teachers the explicit way. Academic vocabulary here according to Perrone (2015) refers to discipline-specific words which are typically unique to a particular academic discipline. They are "the lexicon, concepts, and processes related to the content knowledge of a particular academic discipline" (p. 61). Thus, they can be technical or abstract, and understanding them is essential to building conceptual knowledge in the disciplines in which they are used. The effective design and use of the vocabulary instructional strategy by teachers is a needed course of action in the classroom since its usage could help students understand the ideas/concepts centralized around various vocabulary and also help the students navigate the classroom lessons with a great deal of familiarity. To this end, the importance of Basic Science teachers' use of this teaching strategy in teaching Basic Science concepts cannot be over-emphasized but, it appears most teachers according to Achor, Samba and Ogbeba (2010) and Marzano (2004) are ignorant of innovative strategies needed for effecting teaching and thus do not use them for teaching in order to produce desired results in students' academic performances. Regardless of the potentials inherent in this teaching strategy for improving students' academic performances in Basic Science, its application in Basic Science classrooms is dependent majorly on Basic Science teachers' awareness.

2. OBJECTIVE AND QUESTIONS

2.1. OBJECTIVE

The objective of this study was to examine secondary school teachers' awareness and application of vocabulary instructional strategy for teaching Basic Science in Awka South, Nigeria. Specifically the study sought to determine the:

1. Basic Science teachers' awareness of vocabulary instructional strategy for teaching Basic Science in Awka South.
2. Basic Science teachers' application of vocabulary instructional strategy for teaching Basic Science in Awka South.

2.2. QUESTIONS

The following research questions guided the study:

1. Are Basic Science teachers' aware of vocabulary instructional strategy for teaching Basic Science in Awka South?
2. Do Basic Science teachers apply vocabulary instructional strategy for teaching Basic Science in Awka South?

3. METHOD

The descriptive survey research design was used for the study and according to Anikweze (2013), this research design seeks to find out the current situation obtainable at any given point in time about a given research area of interest.

The study was delimited to junior secondary schools and only Basic Science teachers were covered by the study. The population of the study comprised of all the 60 Basic Science teachers in the 19 government-owned/public secondary schools in Awka South Local Government Area of Anambra State. All the 60 Basic Science teachers were used as the study's sample size and this is because the population size is quite small and can easily be covered by the researchers.

The instrument titled Awareness and Application of Vocabulary Instructional Strategy Questionnaire (AAVISQ) with a reliability coefficient of 0.83 was used to collect data for this study. The instrument was validated by two experts in the field of Basic Science and measurement and evaluation. The AAVISQ has two sections. The Section A which is made up of 10 items with a two-point response options of aware (A) and not aware (NA), sought to find out Basic Science teachers' awareness of the vocabulary instructional strategy while the section B, made up five items with a four-point response options of strongly agree (SA), agree (A), strongly disagree (SD) and disagree (D) sought to find out Basic Science teachers' application of the vocabulary instructional strategy for teaching Basic Science.

In analyzing the data, percentage was used to answer research question one while the arithmetic mean was used to answer research question two. In taking decision for research question one, a percentage value of 50 and above is

considered 'aware' while a percentage value less than 50 is considered 'not aware'. For research question two, any mean with cut-off point of 2.50 and above was taken to be 'agreed' while any mean with cut-off point less than 2.50 was taken as 'disagreed'.

4. RESULTS

Research Question 1: Are Basic Science teachers aware of the vocabulary instructional strategy for teaching Basic Science in Awka South?

4.1. TABLES

Table 1: Frequency and Percentage Responses of Basic Science Teachers on their Awareness of Vocabulary Instructional Strategy for Teaching Basic Science in Awka South.

S/N	Item	Aware Frequency	%	Not Aware Frequency	%	Remark
1	I know about vocabulary instructional strategy	49	81.7	11	18.3	Aware
2	I have seen my colleagues in school using vocabulary instructional strategy	51	85.0	9	15.0	Aware
3	My friends have intimated me on vocabulary instructional strategy	44	73.3	16	26.7	Aware
4	I have learnt about vocabulary instructional strategy during my teachers' training programme in higher institutions	44	73.3	16	26.7	Aware
5	I have come across vocabulary instructional strategy on the internet	44	73.3	16	26.7	Aware
6	I have heard about vocabulary instructional strategy during workshops, seminars and conferences	39	65.0	21	35.0	Aware
7	I have read about vocabulary instructional strategy in journals and textbooks	45	75.0	15	25.0	Aware

8	I have attended conferences that had its theme centred around vocabulary instructional strategy	34	56.7	26	43.3	Aware
9	My school principal have instructed me to use vocabulary instructional strategy for my teachings	33	55.0	27	45	Aware
10	I have listened to or watched an educational audio or video tape where vocabulary instructional strategy was used for teaching	46	76.7	14	23.3	Aware

Basic Science Teachers' Awareness of Vocabulary Instructional Strategy in Awka South

The frequency and percentage responses of Basic Science teachers on their awareness of the vocabulary instructional strategy for teaching Basic Science in Awka South as presented in table 1, shows that the Basic Science teachers are aware of the vocabulary instructional strategy for teaching Basic science, this is so because all items had percentage scores above 50 which is the criterion percentage of awareness. The finding shows that the Basic Science teachers in Awka South are aware of this innovative teaching strategy as against the contrary assertions put forward by Achor (2008) and Marzano (2004) that teachers are ignorant of innovative strategies needed for effective instructional delivery/teaching.

Research Question 2: Do Basic Science Teachers' apply the vocabulary instructional strategy for teaching Basic Science in secondary schools in Awka South?

4.2. TABLES

Table 2: Mean and Standard deviation Responses of Basic Science Teachers on their Application of Vocabulary Instructional Strategy for Teaching Basic Science in Awka South.

S/N	Item	N	Mean	St.d	Remark
1	I use vocabulary instructional strategy to teach Basic science in my matter	60	3.017	1.033	Agree
2	I use vocabulary instructional strategy depending on the subject matter	60	3.067	.841	Agree
3	I use vocabulary instructional strategy when appropriate	60	3.050	.832	Agree
4	I use vocabulary instructional strategy in	60	2.883	.976	Agree

	introducing the basic concepts of the subject matter				
5	I use vocabulary instructional strategy depending on students' familiarity with the subject matter	60	2.683	1.228	Agree
	Grand mean	60	2.940	.725	Agree

Basic Science Teachers' Application of Vocabulary Instructional Strategy for Teaching Basic Science in Awka South

The mean scores across the 5 items describing the application of the vocabulary instructional strategy by Basic Science teachers in Awka South for teaching Basic Science as presented in table 2, shows that the Basic Science teachers apply the vocabulary instructional strategy for teaching Basic Science in Awka South. This is evident from the mean scores of all the items which are greater than the criterion mean cut-off point of 2.50. This finding shows that the Basic Science teachers use innovative teaching strategies such as the vocabulary instructional strategy for teaching Basic Science and this finding thus exonerates the Basic Science teachers from the poor performances recorded by students in internal or external examinations in Basic Science. The poor performance of students can be attributed to other teacher-related factors aside the use of innovative teaching strategies, students-related factors, school-related factors and so on as highlighted in the studies of Afuwape and Olugbuyi (2019), Oludipe (2012), Ayibatonye and Ikechi (2018), Ayibatonye and Balafama (2017) and Umar and Samuel (2018).

5. CONCLUSIONS

The researchers thus concluded based on the findings of the study that Basic Science teachers are not only aware, but also apply innovative teaching strategies such as the vocabulary instructional strategy for teaching Basic Science in secondary schools in Awka South Local Government Area of Anambra State, Nigeria. The Basic Science teachers took advantage of the enormous benefits of this teaching strategy to teach students and also help them approach Basic Science lessons with a great deal of familiarity thus, improving their understanding of Basic Science concepts and topics. The researchers also concluded that students' poor performance in Basic Science both in internal and external examinations, cannot be traced to the Basic Science teachers' ignorance and lack of application of innovative teaching strategies such as the vocabulary instructional strategy but can be traced to other factors such as student-related factors, environmental factors and other teacher-related factors as highlighted by previous researches.

The findings of this study are limited to the responses of the Basic Science teachers in Awka South Local Government Area of Anambra State, Nigeria. This limitation stems from the tendencies of the Basic Science teachers to evaluate themselves more highly and positively than required. The researchers however concluded that this limitation can be addressed, using the responses of students who happen to be the direct recipients of the Basic Science teachers' classroom instructions. The researchers thus concluded that these findings can be generalized on the whole teacher population in all the public secondary schools in Anambra State, Nigeria.

REFERENCES

Achor, E. E., Samba, R., & Ogbeba, J. (2010). Teachers' awareness and utilization of innovative teaching strategies in secondary school science in Benue state, Nigeria. *Educational Research*, *1*(2), 032-038.

Afuwape, M. O., & Olugbuyi, A. L. (2019). Eradicating poor achievement in Basic Science and Technology through learning activity package: how do students behave in Nigeria?. *Journal of Education in Black Sea Region*, *5*(1), 15-25.

Anikweze, C. M. (2013). Measurement and evaluation for teacher education. Ibadan: Malijoe Soft Print.

Alebiosu, K. A., & Ifamuyiwa, S. A. (2008). Perspectives in Provisions for Science and Technology Education in Nigeria: The Way Forward. *Open Journal of Education*, *2*(3), 16-30.

Ayibatonye, J. E., & Balafama, G. (2017). Evaluation of causes of poor academic achievement in Basic Science in secondary schools in Rivers State: The parents, teacher's perspective. *International Journal of Innovative Education Research 7*(4), 83-98.

Ayibatonye, J. E., & Ikechi, O. (2018). Academic achievement of students in Basic Science among secondary schools in Rivers State: Synergy of parents' educational background, socio- economic status and school location. *International Journal of Science and Research (IJSR) 7*(1), 1185-1192. doi: 10.21275/ART20178883.

Ezeliora, B. (2004). Motivating secondary school science teachers to face the challenges of the third millennium. *Journal of the Science Teacher Association of Nigeria*, *39*(1), 23-31.

Ezeoguine, E. P., & Amaechi-udogu, V. C. (2019). Constructivism as a paradigm for transposing the teaching and learning of basic science and technology in secondary schools. *European Journal of Research and Reflection in Educational Sciences*, *7*(10), 145-150.

Fajemidagba, O. (2014). Trends in science education: Issues and problems. *AST 2*(I), 139 – 153.

Hanson, S., & Padua, J. F. (2011). Teaching Vocabulary Explicitly. Effective Instructional Strategies Series. *Pacific Resources for Education and Learning (PREL)*.

Hiebert, E. H. Hiebert, E., & Lubliner, S. (2008). The Nature, Learning, and Instruction of General Academic Vocabulary. In A. Farstrup & J. Samuels (Eds.) What research has to say about vocabulary instruction. Newark, DE: International Reading Association.

Horst, M. (2005). Learning L2 vocabulary through extensive reading: A measurement study. *Canadian Modern Language Review*, *61*(3), 355-382.

Kame'enui, E. J., & Baumann, J. F. (2012). *Vocabulary instruction: Research to practice*. New York: Guilford Press.

Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., & Torgesen, J. (2008). Improving adolescent literacy: Effective classroom and intervention practices: A practice guide (NCEE 2008-4027). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=WWC20084027

Macaro, E. (2006). Strategies for language learning and for language use: Revising the theoretical framework. *The modern language journal*, *90*(3), 320-337.

Marzano, R. J. (2004). A six-step process for teaching vocabulary. *Building background knowledge for academic achievement. Alexandria, VA: Association for Supervision and Curriculum Development*.

Marzban, A., & Kamalian, K. (2013). Effects of implicit versus explicit vocabulary instruction on intermediate EFL learners' vocabulary knowledge. *ELT Voice*, *3*(6), 84-95.

Nigerian Education Research and Development Council (2012). *9-years basic education curriculum in Basic Science and Technology.* Abuja: Universal Basic Education Commission.

Nwosu, A. A. (2004) Teachers Awareness of Creativity Related Behaviours in the Science classroom Implication for National Development. *Journal of Science Teachers Association of Nigeria, 39* (1&2), 22-30.

Okolocha, C. C., & Onyeneke, E. N. (2013). Secondary school principals' perception of business studies teachers' teaching effectiveness in Anambra State, Nigeria. *Journal of Education and Practice, 4*(2), 171-182.

Oludipe, D. I. (2012). Gender difference in Nigerian junior secondary students' academic achievement in basic science. *Journal of Educational and Social Research*, *2*(1), 93-93.

Omiko, A. (2016). An evaluation of classroom experiences of basic science teachers in secondary schools in Ebonyi State of Nigeria. *British Journal of Education, 54*(1), 64-76.

Omotayo, D. M., Ihebereme, C., & Maduewesi, B. (2016). Management of Universal Basic Education scheme (U.B.E) for qualitative education in Nigeria. Education, 129 (2): 308-314. STAN (1970). Curriculum Development Newsletter, p. 1.

Perrone, M. (2015). The development of academic vocabulary in K-12 ELLs through explicit, systematic pedagogy: A multifaceted approach. *NYS TESOL Journal*, *2*(1), 60-69.

Reutzel, D. R., & Cooter, R. B. (2013). The essentials of teaching children to read (3*rd* ed.). New York, NY: Pearson.

Talbert-Johnson, C. (2004). Structural inequities and the achievement gap in urban schools. *Education and Urban Society*, *37*(1), 22-36.

Umar, U. N., & Samuel, R. I. (2019). Influence of school facilities and school types on senior secondary school science students' academic performance in Nasarawa State, Nigeria. *Case Studies Journal, 8*(1), 84-88.