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ASSOCIATION OF RISK AND PROTECTIVE FACTORS WITH THE MENTAL HEALTH STATUS AMONG ADOLESCENTS IN PUNJAB, PAKISTAN

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ABSTRACT

Background: A person is born with risk factors that could become stress or protective factors that could compromise their mental health.

Objective: This study should investigate how risk factors such as peer pressure, anxiety, stress, emotional problems, behavioral problems, hyperactivity, and bullying and protective factors such as prosocial conduct, family relationships, and self-esteem, affect teenagers' mental health.

Materials and Methods: In District Lahore, 240 high school students participated in this cross-sectional survey. Questionnaires were given to participants to complete as part of the study instrument. Smart PLS and SPSS 23.0 were used to evaluate the data that was gathered.

Results: The results showed that the protective factor and mental health status had been significantly and negatively impacted by the risk factor. Additionally, statistical analysis revealed that the protective factor had a good and significant impact on the state of mental health. The impact of the risk factor on the mental health status was also significantly mediated by the protective factor.

Conclusion: In order to preserve teenagers' mental health, the risk factor must be avoided and the protective factor must be strengthened.

Keywords: Mental Health, Risk Factors, Protective Factors, Adolescents

Introduction

Every person is susceptible to a range of health problems that could impair their mental, emotional, physical, and spiritual health. Adolescents' mental health may be affected by maladaptive stress management strategies (Anniko et al., 2019). Numerous epidemiology studies conducted worldwide have extensively established the prevalence of mental health concerns in adolescents. According to a poll conducted by the American Psychiatric Association (APA), 100,000 teenagers and young adults in the United States between the ages of 15 and 25 report having experienced a psychotic episode at

some point in their lives (Goldstein & Azrin, 2014). Similarly, a number of studies have also verified that 81.4% of Indonesian adolescents between the ages of 12 and 15 experience prodromal symptoms (Damanik et al., 2017).

Adolescence's transitional phase can be quite harsh and can lead to diseases or mental health problems. Adolescents undergo biological, social, and psychological changes throughout this time that serve as critical risk factors and start the development of protective factors. Examples of these changes include the quality of family relationships, life experiences, self-concept, and conflict resolution. These risk and protective factors may have an impact on their mental health (Babić et al., 2020; Liu et al., 2019). Numerous initiatives have been developed with the goal of improving teenage mental health around the world. According to the World Health Organization, mental health services have to be provided in a variety of medical settings, including hospitals and primary care offices. Mental health services are also directed toward community settings like homes, prisons, and educational institutions. To attain the condition of mental well-being among adolescents, community-based mental health initiatives are integrated with physical, mental, and social activities (World Health Organization, 2005).

Research Objective

This study should investigate the impact of protective factors (prosociality, family relationships, self-esteem) and risk factors (bullying, anxiety, stress, emotional problems, behavioral problems, hyperactivity, and issues with peers) on the mental health status of teenagers.

Materials and Methods

Study Participants and Procedure

This quantitative and cross-sectional study conducted to identify the correlation between the risk factor, protective factor, and mental health status among the adolescents. The stratified cluster sampling was applied to adolescents from the ages of 10-15. The stratified cluster sampling was employed to randomly pick the district, school, and class. The 240 eligible study participants were recruited in seventh and eighth grades. Data were collected from August 2023 to November 2023.

Research Instrument

Mental Health Continuum Short Form (MHCS-F). The mental health variable was measured by the Mental Health Continuum Short Form (MHC-SF) Questionnaire, which was developed by Keyes (2002). This scale consists of 14 question items measuring the mental health status through three major components: emotional, psychological, and social well-being. Each question item asks participants to indicate their mental health state on a Likert scale, anchored by the range of score from 0 to 5. The score of 0, 1, 2, 3, 4, and 5 referred to the response of once or twice, once a week, two to three times a week, almost every day, and every day, respectively.

The Rosenberg Self Esteem. Participant's self-worth perception was evaluated by the Rosenberg Self-Esteem Scale (RSES) Questionnaire, which was developed by Morris Rosenberg in 1965. Ten question items with four types of responses (Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1) were included to measure the level of self-esteem among the participants. These question items were organized as favorable question items (four question items, item number 3, 5, 9, and 10) and unfavorable question items (six question items: item number 1, 2, 4, 6, 7, and 8). RSES Questionnaire has been widely adopted to measure self-esteem levels in previous studies. The total score from the questionnaire ranged from 0 to 40, which eventually divided into two categories: low self-esteem: ≤ 20 and high self-esteem: > 20.

Index of Family Relations (IFR). The family relationship quality variable was measured by the Index of Family Relations (IFR) Questionnaire from Hudson (1993). IFR is a self-report measure of a family relationship quality. IFR consists of 25 question items with five types of responses (0 = never, 1 = seldom, 2 = sometimes, 3 = often, 4 = always) with a total score of 0 to 100. These question items were classified into favorable (item number 1, 2, 4, 5, 8, 14, 15, 17, 18, 20, 21, and 23) and unfavorable sections (item number 3, 6, 7, 9, 10, 11, 12, 13, 16, 19, 22, 24, and 25). A total score of > 50 signified

a high-quality family relationship. Lower quality of family relationships indicated by the total score of ≤ 50.

Strength and difficulties questionnaire (SDQ). The Strength and Difficult Questionnaire (SDQ) was developed by Robert Goodman in 1997 to screen the pro-social capability. The SDQ screens the pro-sociality domain through 25 question items. Five question items evaluate the direct prosocial behavior as the protective factor. Each question is complemented by three Likert-Scale based responses: not true (score 0), somewhat true (score 1), and certainly true (score 2). The total score was classified into three categories: normal (score 6 to 10), borderline (score 5), and abnormal (score 0 to 4).

Bullying Questionnaire. This instrument was applied to collect the bullying behavior among the participants. The question items were developed according to an instrument that had been established by Tarshis & Huffman (2007), "Peer Interaction". Twenty-two question items with Likert-Scale-based responses are provided (never=0, sometimes=1, often=2) to measure the bullying behavior. The total score ranged from 0 to 44 that classified into low and high bullying behavior with the total score of 0-16 and >16, respectively.

Depression, Anxiety and Stress Scale (DASS). DASS enrolls 21 question items that are specifically divided into 7 depression, 7 anxiety, and 7 stress-related question items to measure the degree of depression, anxiety, and stress among the participants. Each question is accompanied by four types of responses in the Likert- Scale: never=0, sometimes=1, often=2, and always=3) with a total score of 0 to 21. The total scores of 0-7, 10-12, 13-16, and >16 indicated mild, moderate, severe, and extreme levels of anxiety, respectively.

Data Analysis

With SPSS 23.0, the descriptive statistic and the intercorrelation between the variables were examined. In order to answer the study hypothesis, the inferential analysis was then carried out utilizing the Smart Partial Least Square (Smart PLS). A structural model equation was subsequently assessed in accordance with the results of the PLS analysis. This study contained two basic evaluations: the measurement model (outer model), which assessed the validity and reliability of the latent variable measurement indicators; and the structural evaluation model (inner model), which examined the accuracy of the model.

Results

Table 1. Mean, SD, and Intercorrelation between the Variables

Variable/ Indicator	Mean	SD	1	2	3
Risk Factor (X1)	54.39	28.57	-	-0.556**	-0.459**
Bullying ($X_{1.1}$)	8.12	6.67	0.658	-0.320	-0.288
Depression ($X_{1.2}$)	9.05	6.77	0.839	-0.488	-0.529
Anxiety ($X_{1.3}$)	11.67	8.69	0.837	-0.343	-0.306
Stress ($X_{1.4}$)	9.68	7.86	0.896	-0.453	-0.429
Emotional Issue $X_{1.5}$)	4.65	2.41	0.685	-0.439	-0.377
Behavior Issue ($X_{1.6}$)	3.55	1.56	0.435	-0.446	-0.204*
Hyperactivity ($X_{1.7}$)	4.23	1.56	0.565	-0.450	-0.274
Peer Relationship Issue (X1.8)	3.44	184	0.393	-0.392	-0.307
Protective Factor (Y1)	116.36	19.74	-0.556**	-	0.589**
SE ($Y_{1.1}$)	28.68	3.91	-0.496	0.650	0.488
Family Relationship ($Y_{1.2}$)	80.55	17.15	-0.525	0.966	0.563
Pro-sociality ($Y_{1.3}$)	7.13	1.88	-0.062	0.400	0.205*
Mental Health Status (Y2)	41.60	15.35	-0.459**	0.589**	-
Emotional Wellbeing ($Y_{2.1}$)	9.16	3.92	-0.383	0.468	0.757
Psychosocial Wellbeing ($Y_{2.2}$)	19.11	6.85	-0.453	0.561	0.906
Social Health ($Y_{2.3}$)	13.33	6.68	-0.366	0.492	0.916

Note: * $p<0.05$; **$p<0.01$

The correlation analysis and descriptive statistic are displayed in Table 1. The study variable pathway diagram is shown in Figure 1. The results validated the considerable and unfavorable relationship between the risk factor and the teenagers' mental health state. Additionally, it was discovered that risk factors had a strong and positive correlation with the individuals' mental health.

Bullying (X1.1), depression (X1.2), anxiety (X1.3), stress (X1.4), emotional issue (X1.5), behavioral issue (X1.6), hyperactivity (X1.7), and peer relationship issue (X1.8) were the eight indicators on the risk factor variable (X1). Peer relationship issues (X1.8) and anxiety (X1.3) had the lowest statistical means, 3.44 and 11.67, respectively, according to analysis. Additionally, the behavioral issue (X1) (0.513) and the risk factor variable (X1) (0.874) were shown by the cross-loading variable to be the greatest and weakest indicators, respectively.

The protective factor variable (Y1) included an analysis of pro-social activities (Y1.3), familial relationships (Y1.2), and self-esteem (Y1.1). Pro-social activity (Y1.3) and family relationships had the lowest and highest means, respectively, of 7.13 and 80.55, according to statistical analysis. With values of 0.849 and 0.357, respectively, the cross-loading value subsequently indicated that the pro-social activity (Y1.3) and self-esteem (Y1.1) indicators were the strongest and weakest, respectively. With total scores of 9.16 and 19.11, respectively, emotional well-being (Y2.1) and psychosocial well-being indicator (Y2.2) had the lowest and highest means in the mental health variable (Y2). Statistical analysis also revealed that, with values of 0.898 and 0.818, respectively, the psychosocial (Y2.2) and emotional well-being (Y2.1) were the strongest and weakest indicators from the cross-loading value.

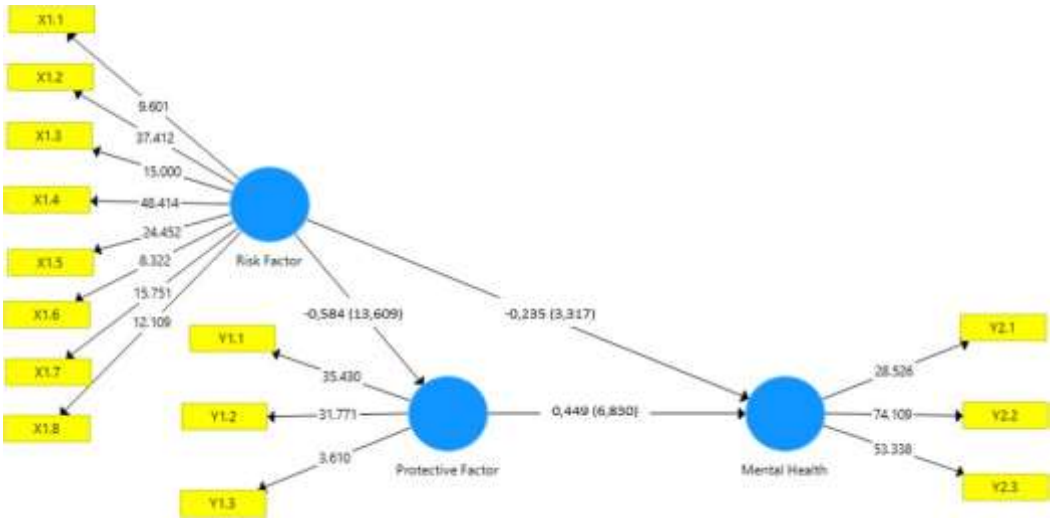

Figure 1. Pathway diagram of the study variable

Measurement Model Evaluation (Outer Model)

According to the outer model feasibility test, all indicators in this study had met the convergent validity criteria with the outer loading value of >0.50 and/or T- Statistic value of >1.96. The cross-loading value was also higher on the constructed variable for each indicator compared to the cross-loading value on other variables. In the cross-loading factor of X.1.1, the risk factor (X1) was 0.590 higher than the cross-loading factor in other variables: protective factor (0.291) and mental health status (0.230). This finding signified that the study indicator had a good level of discriminant validity in constructing their variables. Statistical analysis also revealed the discriminant validity of the risk factor, protective factor, and mental health status was higher than 0.5 (AVE > 0.5). The composite reliability evaluation also showed that the value of the risk factor, protective factor, and mental health status variable was higher than 0.70, indicating them as the reliable indicators for the variable measurement. Thereby, each indicator in each latent variable was statistically confirmed as a valid and reliable instrument.

Structural Model Evaluation (Inner Model)

The Q2 value was 0.9295. This value was close to the value of 1, which signified the criteria of the goodness-fit model had been fulfilled by the proposed structural model. Further, this value indicated that the model explained the information from the collected data as much as 92.95%, 7.05% of the information would be elucidated by errors or other unstudied variables.

Discussion

Our findings revealed that a lower risk factor correlated with a higher mental health status among adolescents. Bullying, depression, anxiety, stress, emotional issues, and behavioral issues was included in the risk factor variable analysis. These risk factors delivered a significant and negative effect on the mental health status. This finding was parallel with a study conducted by (Praptikaningtyas et al., 2019). They discovered that depression significantly correlated with suicidal ideation and social functional declines in adolescent's life. Similarly, another study also confirmed that anxiety would cause more issues in social relationships that was also an essential part of mental health well-being (Verawaty & Widiastuti, 2020). Mental health status is highly affected by social well-being. It is presented by the ability to adapt in new environment and establish effective communication with others. Hence, chronic anxiety without proper medical assistance may prevent their capability to achieve optimal mental well-being. Further, bullying as an indicator of the risk factor may also generate a poor mental health status (Chang et al., 2013; Cowie & Myers, 2017; Varela et al., 2021).

Bullying has been generating severe anxiety and depression symptoms that interferes the emotional, physical, and social health in the adolescence period (Chu et al., 2019). Studies reported that people who experienced bullying had stated more anxiety symptoms than other due to the response of fight or flight. Maladaptive coping mechanism would lead to anxiety, depression, stress, and other issues that may trigger more serious emotional and psychological problems (Richard, 2002). If it remains unresolved, this situation would alter their mental personal development and escalate various psychological symptoms, such as constant hopelessness feeling (García-Moya et al., 2019; Verhulp et al., 2017). Health promotion activities are urgently required to create resiliency among adolescents in navigating their tough times and overcoming any challenges and difficulties in their life.

The presence of bullying and depression indicator in the risk factor may result in a lower level of self-esteem (Fitriah & Hariyono, 2019). A study had demonstrated the bullying as a major factor of the low level of self-esteem among the adolescents. A low level of self- esteem could interfere their skill in establishing a sufficient social connection with their peers (Saniya, 2019).

Previous findings and literature studies highlighted the sufficient effect of the protective factors on the adolescent's mental well-being (Muris, 2016). Adolescent with a high mental health status tends to show satisfaction and positive attitude toward their self-identity, establish effective communication and connection with the surrounding, perform their daily activity and errand adequately, and demonstrate sufficient adaptation strategies with their environment and stressors (Keyes, 2014). Further, a good level of psychological health would encourage an individual empowering themselves to achieve certain goals and deal with self- related issues, which in turn constructs effective coping strategies to manage the conflicts outside themselves (Triana, Keliat, Wardani, et al., 2019). However, a poor skill in establishing sufficient social connections could decrease the social functional capability due to the inadequate coping strategies.

Adolescents who constantly contribute to their surrounding tends to show normal behavior with no behavioral or emotional issues (Traylor et al., 2016). This finding also indicated the need of mental health promotion activities to maintain the adolescent's social function and mental well- being.

This study also found that protective factor had brought a positive and significant effect on the mental health status. This finding signified that a higher protective factor correlated with a higher mental health status. Further, we also found a positive correlation between the level of self-esteem and mental health status. This finding was in line with a study conducted by Triana, Keliat, & Sulistiowati (2019) that discovered a significant correlation between the level of self-esteem and mental well-being. A higher level of confidence drives the capacity to enthusiastically think and discover ways to deal with

the stressors. These adaptive coping mechanisms would protect adolescent's mental well-being (Triana, Keliat, Wardani, et al., 2019). An adequate level of self-esteem develops adaptive defense mechanisms due to the effective coping strategies that affect positive behavior in adolescent's social life.

A lower protective factor generated a poor mental health status among the adolescents. This study evaluated several protective factors such as self-esteem, family relationship quality, and pro-sociality. Adolescent with a low level of self- esteem typically has a lack of confidence and negative perception about one self that commonly ends with anxious feeling, poor social function, depression, violent behavior, or suicide ideation (Hwang et al., 2016). Several studies also identified the low level of self-esteem among children or adolescents with depression, anxiety, and other mental illnesses (Keane & Loades, 2017; Retnowati & Munawarah, 2009). These findings confirmed that adolescents with low level of self-esteem are vulnerable of mental health issues.

The family relationship quality also delivered a positive and strong influence on the mental health status. A high-quality family relationship would generate a higher mental health status. Adolescent tends to feel closer to their parents and family in early adolescence. In late adolescence, they become more emotionally separated with their family and establish closer connection with their peers. Similarly, a study from (Jou, 2012; G. F. Moore et al., 2018) also confirmed the positive and significant correlation between the high quality family relationship and mental health well-being of each family members.

A higher level of prosocial also connected with a higher mental health status. Several studies had demonstrated the capability of the high pro-sociality in maintaining the psychological wellness (Herdiyanto et al., 2016; Marbun & Setiawan, 2019). Pro-sociality constructs positive perception and attitude toward themselves and their surroundings, encourages better decision making process, and conducts a meaningful personal development (Herdiyanto et al., 2016).

A lower risk factor together with a higher protective factor generated a higher mental health status. Finding also signified that the indirect effect of the risk factor through the protective factor mediation would bring more significant impacts on the mental health status. Hence, a lower risk factor with a higher protective factor produced a higher mental health status among adolescents. In the opposite situation, a higher risk factor and a lower protective factor would generate a lower mental health status.

This finding also signified that protective factor would play a significant role prior its indirect influence on the mental health status. Similarly, previous study also discovered the effect of risk factors, such as stress, in declining the mental health status. However, the existence of an adequate perception of self-esteem and capability would assist an individual to cope with the stressors and maintain their mental health well-being, without significantly affected by the risk factors (Moore & Ramirez, 2016). In the other hand, a poor psychological health would initially alter the self-esteem level, then subsequently induced depressed feelings (Retnowati (2004) in Urbayatun & Widhiarso, 2012).

Protective factors such as self-esteem, family relationship quality, and pro- sociality are the supporting components of mental resiliency among the adolescents (Preston & Rew, 2022). This finding was parallel with the previous studies that highlighted the effect of self-esteem optimization and family/sosial system approach on the psychological symptoms and mental health well-being improvement (Padilla-Walker, Millett, & Memmott-Elison, 2020). Although a mental health issue may be found in the initial step, the adaptive coping mechanism would assist the construction of a proper self-control behavior and maintain the mental well-being (Harrison et al., 2021).

We also discovered that the indirect influence of the risk factor through the protective factor on adolescent mental health was greater than its direct influence. This finding signified that the indirect effect of the risk factor through the protective factor mediation would bring a more significant impact on the mental health status. Although, adolescent is commonly having lower risk factors, inadequate protective factors would still place them in more risk of mental health issues. The indirect influence from the risk factors on their mental health status may occur due to the insufficient defense mechanism response on the risk factors. Adaptive coping mechanisms facilitated the adolescent's responses in

confronting the difficulties in their daily life, thereby maintaining their mental health well-being (Konaszewski et al., 2021). Further, previous studies also had discovered that risk factor affected the adolescent resiliency that would alter the psychological (Konaszewski et al., 2021), emotional (Austin et al., 2022), and social health (Arslan, 2021).

Adolescent population is vulnerable to physical, cognitive, and psychological changes. Thereby, presenting them as a population that prone to the mental health illnesses (Sulaiman et al., 2021). Additionally, these changes have been placing them in difficult situation to accurately perceive the main source of their mental health issues. Inadequate protective factors would make the situation worse. Low self-esteem and poor family relationship quality put their mental health in more risk. It has been widely demonstrated that an individual with a high self-esteem would live with the positive mental health status. In the other hand, an individual with low self-esteem would struggle with poor mental health status (Auttama et al., 2021). Family supports also legates the proficiency to perform adequate conflict managements (Ngo et al., 2021). The failures in maintaining the protective factors and lack of family support have been significantly correlated with the adolescence mental health and well-being.

Adolescence is a crucial period occupied with growth spurts and developmental changes. The failure of maintaining adaptive responses in confronting the risk factors in this period may trigger various mental health issues. The recent study found that the risk factors was delivered major influence on adolescent's mental health status. Several shreds of literature mentioned that adolescent's mental health had been constructed by three major components: emotional, psychological, and social wellness (Keyes, 2014). Most emotional issues among adolescents are generated by their poor emotional wellness. The long and unresolved emotional issues coupled with the maladaptive emotional regulation strategies or prevention would interfere the mental health well-being and their capability in achieving the goals of the developmental tasks in the adolescence period.

Bullying behavior, depression, anxiety, stress, emotional issue, and behavioral issue was included in the risk factor variable analysis. Several studies discovered the correlation between the risk factor and adolescent's mental health status (Al- Zawaadi et al., 2021; Angelina et al., 2021). Further, these studies also elaborated the effect of the risk factors on the severity level of the mental health illnesses. Additionally, several studies also highlighted the influence of the emotional issues, depression, anxiety, and stress on the mental well-being among the adolescents. These issues were considered as typical and dominant factors that affected the adolescent's mental health status (Clarke et al., 2020; Vizard et al., 2018). Risk factor delivers negative influences on the defense mechanisms among the adolescents (Brackenreed, 2010). Risk factor triggers adolescent's fragility and indecisiveness in taking decisions for themselves. This situation may affect their psychological balance due to the poor resilience (Collishaw, et al., 2016). In the recent study, we found that risk factor had influenced the resiliency to take adaptive actions. Hence, these findings are accentuating the demand of risk factor management to control the risky behavior that may emerge in their surrounding environment.

Conclusion

Based on these results, we came to the following conclusions:

1. Risk factor had a substantial and detrimental impact on the state of mental health. The relationship between a reduced risk factor and a higher mental health status was validated by statistical analysis.
2. The protective factor was significantly and negatively impacted by the risk factor. A bigger protective factor would result from lower risk factors, according to statistical analysis.
3. The protective factor had a favorable and noteworthy impact on the state of mental health. The findings indicated that adolescents' mental health would improve with a larger protective factor.
4. The protective factor had a substantial mediating role in the relationship between the risk factor's impact and the mental health status. According to this research, having enough protective factors in addition to a decreased risk factor will either preserve or improve mental health.
5. The risk factor had a greater impact on mental health status through the protective factor's indirect effect than through its direct effect. This result showed that the risk factor's indirect effect had a greater degree of influence on the teens' mental health.

6. Compared to the protective factor, the risk factor had a greater influence on the state of mental health.

References

1. Al-Zawaadi, A., Hesso, I., & Kayyali, R. (2021). Mental health among school-going adolescents in Greater London: a cross-sectional study. Frontiers in Psychiatry, 12, 592624.
2. Angelina, S., Kurniawan, A., Agung, F. H., Halim, D. A., Wijovi, F., Jodhinata, C., Evangelista, N. N., Agatha, C. M., Orlin, S., & Hamdoyo, A. (2021). Adolescents' mental health status and influential factors amid the Coronavirus Disease pandemic. Clinical Epidemiology and Global Health, 12, 100903.
3. Anniko, M. K., Boersma, K., & Tillfors, M. (2019). Sources of stress and worry in the development of stress-related mental health problems: A longitudinal investigation from early-to mid-adolescence. Anxiety, Stress, & Coping, 32(2), 155–167.
4. Arslan, G. (2021). Psychological maltreatment predicts decreases in social wellbeing through resilience in college students: A conditional process approach of positive emotions. Current Psychology, 1–11.
5. Austin, J. L., Jeffries, E. F., Winston III, W., & Brady, S. S. (2022). Race-related stressors and resources for resilience: associations with emotional health, conduct problems, and academic investment among African American early adolescents. Journal of the American Academy of Child & Adolescent Psychiatry, 61(4), 544–553.
6. Auttama, N., Seangpraw, K., Ong-Artborirak, P., & Tonchoy, P. (2021). Factors associated with self-esteem, resilience, mental health, and psychological self-care among university students in Northern Thailand. Journal of Multidisciplinary Healthcare, 14, 1213.
7. Babić, R., Babić, M., Rastović, P., Ćurlin, M., Šimić, J., Mandić, K., & Pavlović, K. (2020). Resilience in health and illness. Psychiatria Danubina, 32(suppl. 2), 226–232.
8. Batara, R., Ardani, I. G. A. I., Wardani, I. A. K., Windiani, I. G. A. T., Adnyana, I.G. A. N. S., & Setiawati, Y. (2022). Psychogenic dysphagia in children, and the success of family-based treatment: Case report. International Journal of Health & Medical Sciences, 5(1), 163-168. https://doi.org/10.21744/ijhms.v5n1.1894
9. Brackenreed, D. (2010). Resilience and Risk. International Education Studies, 3(3), 111–121.
10. Chang, F., Lee, C., Chiu, C., Hsi, W., Huang, T., & Pan, Y. (2013). Relationships among cyberbullying, school bullying, and mental health in Taiwanese adolescents. Journal of School Health, 83(6), 454–462.
11. Chu, X.-W., Fan, C.-Y., Lian, S.-L., & Zhou, Z.-K. (2019). Does bullying victimization really influence adolescents' psychosocial problems? A three-wave longitudinal study in China. Journal of Affective Disorders, 246, 603–610.
12. Clarke, A., Pote, I., & Sorgenfrei, M. (2020). Adolescent mental health evidence brief 1: Prevalence of disorders. Early Intervention Foundation.
13. Cowie, H., & Myers, C.-A. (2017). School bullying and mental health: Risks, intervention and prevention. Routledge.
14. Damanik, N. S., Keliat, B. A., & Susanti, H. (2017). Pengaruh terapi kognitif perilaku kelompok dan psikoedukasi keluarga terhadap prodroma early psychosis, ansietas, dan harga diri pada remaja di Sekolah Menengah Pertama. FIK-UI, Jakarta.
15. Fitriah, A., & Hariyono, D. S. (2019). Hubungan Self Esteem Terhadap Kecenderungan Depresi Pada Mahasiswa. Psycho Holistic, 1(1), 8–17.
16. García-Moya, I., Johansson, K., Ragnarsson, S., Bergström, E., & Petersen, S. (2019). School experiences in relation to emotional and conduct problems in adolescence: a 3-year follow up study. European Journal of Public Health, 29(3), 436–441.
17. Goldstein, A. B., & Azrin, S. T. (2014). Evidence-Based Treatments for First Episode Psychosis: Components of Coordinated Specialty Care.

18. Harrison, C., Loxton, H., & Somhlaba, N. Z. (2021). Stress and coping: considering the influence of psychological strengths on the mental health of at- risk South African adolescents. Child Care in Practice, 27(1), 72–86.
19. Herdiyanto, Y. K., Psi, S., & HERDIYANTO, Y. K. (2016). Hubungan antara perilaku prososial dengan psychological well-being pada remaja. Jurnal Psikologi Udayana, 3(1).
20. Hwang, S., Kim, G., Yang, J., & Yang, E. (2016). The moderating effects of age on the relationships of self-compassion, self-esteem, and mental health. Japanese Psychological Research, 58(2), 194–205.
21. Jou, Y.-H. (2012). Family relationship quality and its psychological effects among Taiwanese adolescents. In The psychological well-being of East Asian youth (pp. 69–88). Springer.
22. Keane, L., & Loades, M. (2017). Low self-esteem and internalizing disorders in young people–a systematic review. Child and Adolescent Mental Health, 22(1), 4–15.
23. Kementerian Kesehatan Republik Indonesia. (2018). Riset Kesehatan Dasar 2018. Keyes, C. L. M. (2014). Mental health as a complete state: How the salutogenic perspective completes the picture. Bridging Occupational, Organizational and Public Health, 179–192.
24. Konaszewski, K., Niesiobędzka, M., & Surzykiewicz, J. (2021). Resilience and mental health among juveniles: role of strategies for coping with stress. Health and Quality of Life Outcomes, 19(1), 1–12.
25. Liu, Y., Zhang, N., Bao, G., Huang, Y., Ji, B., Wu, Y., Liu, C., & Li, G. (2019). Predictors of depressive symptoms in college students: A systematic review and meta-analysis of cohort studies. Journal of Affective Disorders, 244, 196–208.
26. Marbun, R., & Setiawan, J. L. (2019). Hubungan antara Perilaku Prososial dan Psychological Well-Being pada Remaja Awal. Psychopreneur Journal, 3(2), 81– 91.
27. Moore, G. F., Cox, R., Evans, R. E., Hallingberg, B., Hawkins, J., Littlecott, H. J., Long, S. J., & Murphy, S. (2018). School, peer and family relationships and adolescent substance use, subjective wellbeing and mental health symptoms in Wales: A cross sectional study. Child Indicators Research, 11(6), 1951–1965.
28. Moore, K. A., & N Ramirez, A. (2016). Adverse childhood experience and adolescent well-being: Do protective factors matter? Child Indicators Research, 9(2), 299–316.
29. Muris, P. (2016). A protective factor against mental health problems in youths? A critical note on the assessment of self-compassion. Journal of Child and Family Studies, 25(5), 1461–1465.
30. Ngo, A. T., Tran, A. Q., Tran, B. X., Nguyen, L. H., Hoang, M. T., Nguyen, T. H. T., Doan, L. P., Vu, G. T., Nguyen, T. H., & Do, H. T. (2021). Cyberbullying among school adolescents in an urban setting of a developing country: experience, coping strategies, and mediating effects of different support on psychological well-being. Frontiers in Psychology, 12, 661919.
31. Organization, W. H. (2005). Child and adolescent mental health policies and plans. World Health Organization.
32. Praptikaningtyas, A. A. I., Wahyuni, A. A. S., & Aryani, L. N. A. (2019). Hubungan tingkat depresi pada remaja dengan prestasi akademis siswa SMA Negeri 4 Denpasar. Jurnal Medika Udayana, 8(7), 1–5.
33. Preston, A. J., & Rew, L. (2022). Connectedness, self-esteem, and prosocial behaviors protect adolescent mental health following social isolation: a systematic review. Issues in Mental Health Nursing, 43(1), 32–41.
34. Retnowati, S., & Munawarah, S. M. (2009). Hardiness, harga diri, dukungan sosial dan depresi pada remaja penyintas bencana di Yogyakarta. Jurnal Humanitas, 6(2), 105–122.
35. Richard, J. F. (2002). A typology of children's friendship motivation. University of Ottawa (Canada).
36. Saniya, S. (2019). Dampak Perilaku Bullying Terhadap Harga Diri (Self Esteem) Remaja Di Pekanbaru. Jurnal Keperawatan Abdurrab, 3(1), 8–16.
37. Sulaiman, W. S. W., Kamaluddin, M. R., Zakaria, E., Ibrahim, F., Nazirah, H., Nen, S., Manap, J., Zamani, Z. A., & Yusooff, F. (2021). Sokongan sosial dan kesihatan mental dan pengaruhnya

terhadap kerentanan penglibatan penagih dadah serta pelencongan sosial dalam kalangan remaja. E-bangi, 18(5), 244– 259.
38. Suryasa, I. W., Rodríguez-Gámez, M., & Koldoris, T. (2022). Post-pandemic health and its sustainability: Educational situation. International Journal of Health Sciences, 6(1), i-v. https://doi.org/10.53730/ijhs.v6n1.5949
39. Traylor, A. C., Williams, J. D., Kenney, J. L., & Hopson, L. M. (2016). Relationships between adolescent well-being and friend support and behavior. Children & Schools, 38(3), 179–186.
40. Triana, R., Keliat, B. A., & Sulistiowati, N. M. D. (2019). The relationship between self-esteem, family relationships and social support as the protective factors and adolescent mental health. Humanities & Social Sciences Reviews, 7(1), 41– 47.
41. Triana, R., Keliat, B. A., Wardani, I. Y., Sulistiowati, N. M. D., & Veronika, M. A. (2019). Understanding the protective factors (self-esteem, family relationships, social support) and adolescents' mental health in Jakarta. Enfermeria Clinica, 29, 629–633.
42. Urbayatun, S., & Widhiarso, W. (2012). Variabel mediator dan moderator dalam penelitian psikologi kesehatan masyarakat. Jurnal Psikologi, 39(2), 180–188.
43. Varela, J. J., Sánchez, P. A., Tezanos-Pinto, D., Chuecas, J., & Benavente, M. (2021). School climate, bullying and mental health among Chilean adolescents. Child Indicators Research, 14(6), 2249–2264.
44. Verawaty, K., & Widiastuti, S. H. (2020). Pengaruh Teknik Relaksasi Napas dalam Terhadap Tingkat Kecemasan Mahasiswa Semester II dalam Menghadapi Ujian Akhir Semester di Akademi Perawatan RS PGI Cikini. Jurnal Keperawatan Cikini, 1(1), 16–21.
45. Verhulp, E. E., Stevens, G. W. J. M., Pels, T. V. M., Van Weert, C., & Vollebergh, W. A. M. (2017). Lay beliefs about emotional problems and attitudes toward mental health care among parents and adolescents: Exploring the impact of immigration. Cultural Diversity and Ethnic Minority Psychology, 23(2), 269.
46. Vizard, T., Pearce, N., Davis, J., Sadler, K., Ford, T., & Goodman, A. (2018). Mental health of children and young people in England, 2017. Health and Social Care Information Center.