Adaptation of the PG-13-R Instrument to Measure Prolonged Grief Disorder in Adolescents

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Abstract
Grief due to the loss of a loved one is a normal reaction that can be experienced by teenagers, but if it interferes with daily life and lasts for a long time, this condition can develop into a prolonged grief disorder. The PG-13-R instrument was introduced by Holly Prigerson, designed to measure prolonged grief disorder. Research is needed to confirm the psychometric performance of the PG-13-R in samples with broader ethnicities. This research involved 242 students at SMKN 1 Tasikmalaya, Indonesia using a descriptive quantitative approach. This research aims to measure and describe the characteristics of the validity and reliability of the Indonesian version of the PG-13-R instrument for adolescents who have experienced loss. The results of the validity and reliability test show that the Indonesian version of the PG-13-R instrument has a good level of validity and reliability, with all items declared valid and a high reliability value (Cronbach's alpha = 0.888). Thus, the adapted PG-13-R instrument can be indicated as a valid and reliable measuring tool for identifying prolonged grief disorders in adolescents in Indonesia.

1. Introduction

Indonesia is classified as a country with a high disaster risk index (BNPB, 2023), facing threats such as earthquakes, tsunamis, floods, volcanic eruptions, and pandemics like COVID-19 over the past four years. These events undoubtedly impact individuals' lives, with the COVID-19 pandemic having significant physical and mental health effects (Nasrullah & Sulaiman, 2021). Psychological impacts that COVID-19 survivors might experience include PTSD, fear, insomnia (Brooks et al., 2020), depression (Hasanah et al., 2020), anxiety (Vibriyanti, 2020), and grief (Nasution, 2022). Other disasters also cause material and non-material losses (Ifdil, 2014), including grief (Astuti, 2007). From January 2024 to June 2024, Indonesia experienced 846 disasters resulting in 260 fatalities (BNPB, 2024), while COVID-19 has caused 162,058 deaths up to June 2024 (World Health Organization, 2024). The most common impact of disasters and the pandemic in Indonesia is grief, as death is an inseparable part of human life (Nurhidayati & Chairani, 2014).

Grief is a profound, painful, and prolonged process. It usually takes a long time, often months or even years, for someone to function effectively again (Fitryani et al., 2021). Adolescents, especially students, can also experience grief from losing a loved one. This is important to discuss because adolescents who can understand grief positively can carry out their developmental tasks, while those who cannot may struggle with their development (Susanto & Surjaningrum, 2023). Grief in adolescents can affect various aspects of their lives, such as cognitive aspects like decreased concentration, memory problems, and academic decline; physical aspects like eating and sleeping disorders; social aspects like reduced interaction with the environment; and emotional aspects like mood changes or extreme sadness (Malone, 2016). Research by Pasaribu (2017) shows that adolescents may react with disbelief, shock, anger, emptiness, eating disorders, loneliness, and longing when losing a loved one. According to Asyfiyah (2017), adolescents may also feel disappointed and blame destiny after losing a loved one, which is associated with an increased risk of depression, substance abuse, and suicidal ideation (Harden et al., 2021).

Grief is a normal reaction to loss, but if it interferes with daily life and persists over the long term, it can develop into prolonged grief disorder. The American Psychiatric Association (2021)

states that prolonged grief disorder occurs when someone loses a close person and experiences intense and persistent yearning or becomes obsessed with thoughts of the deceased. Jordan & Litz (2014) suggest that assessing unresolved grief is a wise clinical practice when there isn't enough time for a formal diagnostic interview. Reliable self-report instruments exist, such as the Inventory of Complicated Grief (Prigerson et al., 1995), which is frequently used to identify symptoms of prolonged grief disorder. The ICG was later simplified into the Prolonged Grief Disorder-13 (PG-13), which contains unbiased ICG items (Prigerson et al., 2009). Another shorter instrument is the Brief Grief Questionnaire (Ito et al., 2012).

One of the current instruments for measuring prolonged grief disorder is the Prolonged Grief Disorder-13-Revised (PG-13-R), developed by Prigerson et al. (2021) and first introduced in 2021. Prigerson et al. (2021) found that PG-13-R is valid in measuring prolonged grief disorder according to DSM-5-TR criteria. The PG-13-R includes 13 items, with 3 gatekeeper items and 10 items showing prolonged grief disorder criteria in DSM-5-TR. The 10 symptom items include yearning, preoccupation, identity disturbance, disbelief, avoidance, intense emotional pain, difficulty reintegrating, emotional numbness, feeling life is meaningless, and intense loneliness. The 3 gatekeeper items explore whether the respondent has lost a close person (Q1), the time of the respondent's experienced death (Q2), and the impact of the death event on social, occupational, or other functions (Q13). The PG-13-R measurement model uses a Likert scale where respondents rate the extent to which statements match their condition: "Not at all", "Slightly", "Somewhat", "Quite a bit", and "Overwhelmingly". Previously, the PG-13 Scale (Prigerson & Maciejewski, 2008) was developed during the development of proposed diagnostic criteria for PGD to be included in DSM-5 and ICD-11 (Prigerson et al., 2009). PG-13 and PG-13-R have been translated into various languages after validity and reliability tests, including Swedish, Danish, Korean, Persian, and Nepali (Ashouri et al., 2024; Hwang et al., 2023; Kim et al., 2020; Sveen et al., 2020; Vang et al., 2022).

Prigerson et al. (2021) recommend future research to confirm the psychometric performance of PG-13-R on more ethnically diverse samples. Given the importance of having a valid and reliable tool to identify prolonged grief disorder, this study aims to measure and describe the validity and reliability characteristics of PG-13-R among Indonesian adolescents who have lost a loved one.

2. Method

This research used a quantitative descriptive approach. Descriptive quantitative research usually only measures a variable in a population or sample without comparing it with other variables (Ali et al., 2022). The data collection method for this research was a survey, where the researchers prepared research instruments to collect numerical data, analyzed the data using statistical tests, and reported the results (Budiastuti & Bandur, 2018).

The subjects in this study were students at State Vocational High School 1 Tasikmalaya, Indonesia who had experienced loss due to the death of a significant person such as a father, mother, sibling, grandparent, other family member, friend, or partner. In this study, purposive sampling was used, where sample selection was based on specific considerations or characteristics for data analysis purposes (Sugiyono, 2015). The sample for this research consisted of 242 students who had experienced loss.

This research used the PG-13-R instrument, which had been adapted into Indonesian. The PG-13-R instrument consisted of 13 items, with 3 items as information selectors. The other 10 items used a Likert scale, with 5 points : "*sangat dirasakan*" (strongly felt); 4 points "*cukup dirasakan*" (moderately felt); 3 points "*sedikit dirasakan*" (somewhat felt); 2 points "*agak sedikit dirasakan*" (slightly felt); and 1 point "*tidak sama sekali*" (not felt at all). Validity and reliability tests were conducted to assess the feasibility of the PG-13-R instrument using SPSS Statistics 26. The item validity test (construct validity) used Pearson's product moment correlation method with a significance level below 0.05. Meanwhile, the reliability test of the instrument used Cronbach's alpha method.

The instrument adaptation procedure followed the International Test Commission (2018) guidelines for translating and adapting tests, which included several stages: (1) Stage 1 was the precondition stage. Here, the researchers corresponded and requested permission to adapt the PG-13-R instrument via email to Holly G. Prigerson, the creator of the PG-13-R instrument. On June 20,

2022, the researchers received permission to adapt the PG-13-R instrument into Indonesian. (2) Stage 2 was the instrument translation stage. The PG-13-R instrument was initially composed in English. Thus, a translation process was carried out involving two translators who separately translated each item into Indonesian. (3) Stage 3 was the synthesis of the translation results. This was done by comparing the translations from both translators to identify differences. After the synthesis process was completed, each item was back-translated to evaluate the compatibility between the adapted and original items. (4) Stage 4 was the review of the translation results. The synthesis results were then submitted to experts in instrument development. Here, the researchers conducted an expert judgment process involving two experts. (5) Stage 5 was the readability test. The researchers then conducted a readability test on the final PG-13-R items. The readability test was given to 14 students at a school in Tasikmalaya to ensure that the instructions and all items were easily understood by the participants. (6) Stage 6 was the administration of the instrument. Here, the researchers compiled the items into a scale and distributed the scale to participants who met the criteria. (7) Stage 7 was data analysis. The researchers analyzed the collected data and conducted validity and reliability tests on the Indonesian version of the PG-13-R instrument for adolescents experiencing grief.

3. Results and Discussion

In this study, there were 242 adolescents who experienced the loss of a loved one. The demographic data of the research respondents can be seen in Table 1.

Table 1. Research Samples

Category	Frequency (N=242)
Gender	
Male	166
Female	76
Grade	
Tenth Grade (19 Classes)	157
Eleventh Grade (15 Classes)	85

The results of this study include the validity and reliability tests of the Indonesian version of the PG-13-R instrument in adolescents experiencing grief due to the loss of a loved one. The PG-13-R consists of 13 items, with 3 items (Q1, Q2, Q13) serving as screening items: whether the respondent has lost a close person (Q1), how long ago the death occurred (Q2), and related disturbances (Q13). Therefore, the validity and reliability tests were conducted only on the 10 items that describe the diagnostic criteria for prolonged grief disorder according to DSM-V-TR.

The aspects evaluated in this study are the construct validity and internal consistency reliability of the instrument. Construct validity relates to whether the research instrument used is based on an appropriate and relevant theoretical framework (Budiastuti & Bandur, 2018; Matondang, 2009). Construct validity was measured using the Pearson product-moment correlation. Table 2 presents the construct validity results of the Indonesian version of the PG-13-R instrument using the Pearson product-moment correlation.

Table 2. Validity Test Results of PG-13-R Instrument Indonesian Version

No	Item	r_{count}	r_{table} (0.05)	Sig.	Remark
Q3	Yearning	0.612		0.000	Valid
Q4	Preoccupation	0.765		0.000	Valid
Q5	Identity disruption	0.687		0.000	Valid
Q6	Disbelief	0.710		0.000	Valid
Q7	Avoidance	0.637		0.000	Valid
Q8	Intense emotional pain	0.736		0.000	Valid
Q9	Difficulty with reintegration	0.629		0.000	Valid
Q10	Emotional numbness	0.730		0.000	Valid
Q11	Meaningless life	0.776		0.000	Valid
Q12	Intense loneliness	0.787		0.000	Valid

In assessing construct validity, the r table value for a sample size of 242 is 0.1261. Based on Table 2, the construct validity results show significance values of less than 0.05 with r_{count} > r_{table} for

all items of the PG-13-R instrument. Therefore, it can be concluded that all items of the Indonesian version of the PG-13-R are valid.

Once the items are confirmed valid, the next step is to measure the reliability of the Indonesian version of the PG-13-R instrument using internal consistency tests. In SPSS statistics, the most commonly used internal consistency test, employed in this research, is Cronbach's alpha. The range of alpha coefficient values is from 0 (no reliability) to 1 (perfect reliability). According to Budiastuti & Bandur (2018), experts determine alpha coefficient values as follows:

0   = No reliability

> .70   = Acceptable reliability

> .80   = Good reliability

> .90   = Very good reliability

1   = Perfect reliability

In this study, the reliability test results for the Indonesian version of the PG-13-R instrument yielded a value of 0.888. This indicates that the PG-13-R instrument has good reliability, as it has a value greater than 0.80.

The psychometric measurement results conducted in this study on the Indonesian version of the PG-13-R instrument show that all 10 items are valid. The reliability aspect indicates that the PG-13-R instrument has good reliability. This aligns with the study by Prigerson et al. (2021) in several universities, showing the PG-13-R with high internal consistency: 0.83 (Yale University), 0.90 (Utrecht University), and 0.93 (Oxford University). Another study conducted in other countries, such as Ashouri et al. (2024), which adapted the PG-13-R into Persian, demonstrated that the instrument was valid and had an internal consistency reliability of 0.93, indicating that the Persian version of the PG-13-R had good psychometric properties in the Iranian population. The previous PG-13 instrument has been adapted in several countries, such as in Nepali (Kim et al., 2020), Korean (Hwang et al., 2023), Indonesian (Gunawan et al., 2022), Persian (Sveen et al., 2020), Turkish (Işıklı et al., 2022), Danish (Vang et al., 2022), and others. However, the PG-13-R instrument has rarely been psychometrically tested in other countries.

The PG-13-R instrument can be used to measure prolonged grief disorder in adolescents, consistent with Stephens' (2022) research, which was one of the first studies to identify the need for research focused on adolescents or young adults experiencing loss using the PG-13-R instrument. Other studies, such as Muhtadi (2023), conducted experimental research using the PG-13-R as an instrument to measure prolonged grief disorder in adolescents. The PG-13-R instrument was also used in research on death due to specific events, such as Edwards et al. (2023), which compared the severity of grief using PG-13-R scores for those experiencing grief due to death during the COVID-19 pandemic versus before the pandemic. Additionally, Thieleman et al. (2023) measured the level of prolonged grief disorder using the PG-13-R to consider the relationship with the deceased and the cause of death, such as substance overdose, homicide or suicide, and accidents.

Therefore, the PG-13-R instrument is effective for measuring prolonged grief disorder, as evidenced in various research contexts. The results of the adaptation of the Indonesian version of the PG-13-R instrument can be indicated as a valid and reliable tool for measuring prolonged grief disorder in adolescents in Indonesia

4. Conclusion

Death is an inevitable part of human life and can significantly impact the mental health of those left behind, posing a risk for prolonged grief disorder. The PG-13-R has proven to be a valid instrument for measuring prolonged grief disorder, including in adolescents. This study involved 242 adolescents who experienced the loss of a loved one, measuring the psychometric aspects of validity and reliability of the Indonesian version of the PG-13-R instrument. Out of the 13 items in the instru-

ment, 10 items were tested for validity and reliability using the Pearson product-moment correlation and Cronbach's alpha. The validity test results showed that all items had r values greater than the r table value with significance levels less than 0.05, indicating that all items are valid. The reliability test results showed a value of 0.888, indicating that the instrument has good reliability. Therefore, the Indonesian version of the PG-13-R instrument can be used as a valid and reliable tool for adolescents with symptoms of prolonged grief disorder in Indonesia.

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