



The Effectiveness of Group Counseling using Self-Management Techniques to Reduce Nomophobia in Vocational Students

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ABSTRACT

This study aimed to examine the effectiveness of self-management techniques in reducing nomophobic behavior in vocational students. The research method used Single Subject Research (SSR) design with an A-B-A model. This research was conducted in 2024; the research subjects were students who experienced high levels of nomophobia. Data were collected through direct observation of smartphone use behavior, with visual analysis of changes during the baseline phase, intervention, and after the intervention was stopped. The results showed a significant decrease in the subject's level of nomophobia during the intervention phase and stability of behavior change after the intervention was completed. In conclusion, the study found that self-management techniques can be effectively implemented in intervention programs to reduce smartphone dependence, especially among adolescents. The contribution of this study is to provide practical guidance for teachers, school counselors, or other educational personnel in helping students who experience nomophobia through self-management techniques.

KATA KUNCI

Self-management;
Nomophobia;
Siswa.

ABSTRAK

Tujuan Penelitian ini untuk menguji efektivitas teknik manajemen diri dalam mengurangi perilaku nomophobia pada siswa SMK. Metode penelitian menggunakan desain Single Subject Research (SSR) dengan model A-B-A. Penelitian ini dilakukan pada tahun 2024, subjek penelitian adalah siswa yang mengalami nomophobia tingkat tinggi. Data dikumpulkan melalui observasi langsung terhadap perilaku penggunaan smartphone, dengan analisis visual terhadap perubahan selama fase baseline, intervensi, dan setelah intervensi dihentikan. Hasil penelitian menunjukkan adanya penurunan yang signifikan pada tingkat nomophobia subjek selama fase intervensi dan kestabilan perubahan perilaku setelah intervensi selesai. Kesimpulan penelitian diperoleh temuan bahwa teknik manajemen diri dapat diimplementasikan secara efektif dalam program intervensi untuk mengurangi ketergantungan terhadap smartphone, terutama di kalangan remaja. Kontribusi penelitian ini memberikan panduan praktis bagi guru, konselor sekolah, atau tenaga pendidikan lainnya dalam membantu siswa yang mengalami nomophobia melalui teknik manajemen diri.

1. INTRODUCTION

Dependence on technology, particularly smartphones, has become a growing global concern in recent years. Information technology advances have significantly changed how we interact, especially among teenagers. According to a report from Statista (2022), Indonesia has approximately 177 million smartphone users, making it one of the countries with the highest number of users in Asia (Asyrofi et al., 2023). Smartphones are no longer used solely for communication but for entertainment, education, and social media, leading to high usage frequency, especially among students (Pratama, 2018). Nur et al. (2024) stated that the digital era is one where teenagers are

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inseparable from the influence of technology, making it nearly impossible to separate smartphones from adolescents. The most important consideration is ensuring they are not negatively affected by technological advancements.

Although smartphones provide many conveniences, excessive use can lead to serious issues. One common negative impact is the emergence of nomophobia, a fear or anxiety experienced when someone is unable to access or is separated from their phone. This is especially prevalent among teenagers, whose smartphone dependence is closely tied to social needs, entertainment, and quick access to information (Lestari & Novianti, 2022). Excessive smartphone use, reaching over six hours per day among high school students in Indonesia, exacerbates the tendency toward addiction to these devices (Sari et al., 2020).

Nomophobia, or the excessive fear of being unable to access one's phone, is a psychological condition characterized by anxiety or fear when separated from a phone or losing connection (Gonçalves et al., 2020). Bhattacharya et al. (2019) explained that this term derives from the definition in DSM-IV as a specific form of phobia related to excessive phone dependency. This phenomenon often involves psychological factors such as low self-esteem or social anxiety. A study in India revealed that approximately 41% of teenagers experience varying degrees of nomophobia, which is correlated with depression, anxiety, and reduced quality of life (Sharma et al., 2019). Moreover, research indicates that teenage girls tend to be more susceptible to nomophobia than boys, primarily because they are more prone to anxiety and metacognitive issues when unable to access their phones (Yavuz et al., 2019).

In Indonesia, a study conducted in East Jakarta revealed a significant difference in the level of nomophobia between female and male teenagers, with females being more at risk of experiencing this condition (Sagita & Santika, 2020). The research also highlighted a close relationship between excessive smartphone use and issues such as social media addiction and sleep disturbances like insomnia, all of which contribute to the development of nomophobia (Lin et al., 2021). Therefore, this phenomenon demands special attention, particularly through therapeutic interventions and educational efforts, to minimize its negative impact on teenagers' psychological well-being. With the increasing risk of nomophobia among teenagers, it is crucial to focus on effective management strategies. One emerging approach is self-management techniques, which help individuals regulate their smartphone use more wisely and responsibly. Research by Putri & Sanyata (2023) found that group counseling employing self-management techniques significantly reduced levels of nomophobia among students. Participants in the study who underwent the intervention exhibited decreased phone-related anxiety after completing the counseling program, indicating that this approach is effective in reducing dependence on digital devices.

Self-management techniques were initially developed from the concept of self-control popularized in clinical psychology by Cautela in 1969 and were later expanded by experts such as Kanfer (1970) and Bandura (1991). Self-management is a set of strategies designed to help individuals regulate their behavior through self-monitoring, self-evaluation and self-reinforcement (Sherifal et al., 2018). Over time, this technique has evolved beyond psychology and has been adopted in various other disciplines, including organizational management and education. Initially, self-management focused on teaching individuals to monitor behaviors they wished to change or maintain, evaluate outcomes, and apply rewards or penalties to reinforce desired behaviors. This process is repeated until individuals can effectively enhance self-control (Ercoşkun, 2016).

As time progressed, self-management has become more systematic and applied in various contexts, such as personal management, education, and healthcare (Franklin et al., 2018). For instance, in the modern era, self-management has become an essential part of chronic disease management, where patients are taught to actively identify challenges they face and develop strategies to overcome them. Grady and Gough (2014) emphasized that self-management now focuses on behavioral changes and individuals' intrinsic motivation to make changes aligned with their goals and values. In organizational settings, self-management is also recognized as a vital tool for leaders and employees to achieve professional goals and foster continuous personal development.

Self-management techniques are effective in group counseling and can be applied in daily life, such as through time management practices and self-discipline. A study conducted by Widyastuti and Muyana (2019) in Yogyakarta supports this, showing that self-management techniques help teenagers reduce excessive smartphone use, lowering the risk of nomophobia. By equipping teenagers with knowledge and skills to manage their smartphone usage, such interventions can help minimize negative impacts on mental health, such as sleep disturbances or excessive anxiety. Self-management involves several stages: 1) identifying the problem or situations triggering addictive behavior, 2) setting behavioral change goals, 3) planning strategies to address situations that trigger excessive use, and 4) evaluating the success of these efforts (Widyastuti & Muyana 2019).

Self-management techniques offer an effective solution for helping teenagers overcome nomophobia (Zhou et al., 2022). These techniques are based on the concept of self-control, teaching individuals to regulate their behavior through monitoring, evaluation, and self-reward. In cases of nomophobia, excessive smartphone dependence is often driven by social anxiety and low self-regulation abilities. Self-management enables individuals to recognize behavioral patterns that lead to dependence and to develop strategies to address these situations (Mamykina et al., 2015). Research has demonstrated the effectiveness of these techniques in reducing smartphone-related anxiety and helping teenagers better control their phone usage. For instance, a study by Putri & Sanyata (2023) found that group counseling based on self-management significantly reduced levels of nomophobia among students, helping them feel calmer and manage their smartphone use more effectively.

This research uses the Single Subject Research method to test the effectiveness of self-management techniques in reducing nomophobia among students of SMK Negeri 1 Sidrap. By monitoring students' behavioral changes from the baseline phase through the intervention and evaluation phases, this study will explore how self-management interventions can help students reduce their dependence on smartphones. It is expected that through the skills taught in self-management, students will better regulate their smartphone usage, minimizing the negative effects of nomophobia on mental health and social life while improving their overall quality of life.

2. METHOD

2.1 Research Design

This study employs a quantitative approach using the Single Subject Research (SSR) method (Muecklich et al., 2023), aiming to observe detailed and specific behavioral changes in individuals (N-of-1) as outlined by Groot et al. (2017). The research focuses on measuring the effectiveness of self-management techniques in reducing the level of nomophobia among students. The study uses an A-B-A design, where the first phase (Baseline A1) measures the level of nomophobia before the intervention, the intervention phase (B) observes behavioral changes as self-management techniques are applied, and the second baseline phase (A2) evaluates behavior after the intervention is discontinued (Yuwono, 2015). The intervention in this study involves teaching self-management techniques, including steps such as self-monitoring, stimulus control, and self-rewarding.

2.2 Location and Year of Research.

The study was conducted at SMK Negeri 1 Sidrap over three months, from April to June 2024, with consistent measurements in each phase: before, during, and after the intervention. The research subject is a 17-year-old student with severe nomophobia symptoms, identified as RA. Data were collected through direct observation and daily documentation, with visual analysis covering within-condition and between-condition observations.

2.3 Data Collection

The tools and materials used in this study include observation sheets, stationery, a laptop, and visual aids such as graphs to support the data analysis process. The research procedure involves data collection through observation, intervention implementation, data processing, and preparing a final report based on the analysis results.

2.4 Data Analysis

Within-condition analysis measures the condition's duration, trend direction, behavioral stability, data trace, and the subject's behavioral stability level during the intervention. Meanwhile, the between-condition analysis compares the baseline and intervention phases to assess changes in trends, behavioral stability, and the percentage of change.

3. RESULTS AND DISCUSSION

3.1 Results

3.1 Baseline A1

The analysis of the Baseline A1 phase aims to evaluate the subject's behavioral patterns before the Self-Management intervention, focusing on the stability or changes in the level of the subject's nomophobia. During this stage, the observed behavior was the subject's dependence on their smartphone, which exhibited a stable trend. This indicates that the subject consistently displayed a high level of nomophobia with no significant fluctuations in smartphone usage intensity across observation sessions.

The data collected over five observation sessions in the Baseline A1 phase showed that the subject's smartphone usage remained at the same level, with no major changes. In other words, the subject demonstrated a persistent pattern of smartphone dependence, indicating no efforts or external factors influencing a reduction in nomophobic behavior. The observations provide an initial understanding of how the subject behaves before the intervention, serving as an essential comparison for the subsequent phases. Detailed data on nomophobia behavior during the Baseline A1 phase are presented in the following table:

Table 1. Baseline 1 (A1) Data on Nomophobia Behavior

Session	Maximum Score	Intervention Score (A1)	Score
1	25	23	92
2	25	23	92
3	25	23	92
4	25	23	92
5	25	23	92

From the table above, it can be observed that the subject's smartphone usage consistently remained at 92% in each session. This indicates that the subject's nomophobia behavior was stable and did not show any significant changes before the intervention. The data can be presented in a graph to better visualize the changes in nomophobia behavior among 12th-grade students at SMKN 1 Sidrap during the Baseline A1 phase. This visualization simplifies data analysis and facilitates the process of concluding. The graph is as follows:

The duration of the Baseline A1 phase in this study spanned five observation sessions, during which the subject's nomophobia behavior was closely monitored. Based on the observations, the subject's behavior exhibited high stability, with a dependency score on smartphones consistently reaching 90% in each session. This stability indicates that the subject consistently displayed similar behavior patterns without significant fluctuations or changes during this baseline phase. Data from sessions 1 to 5 show no natural effort by the subject to reduce smartphone dependency without external intervention, leading to the conclusion of this phase after five sessions.

The trend estimation during the Baseline A1 phase was calculated using the Split-Middle method. This method divides the data into two parts, identifies the median of each part, and connects the points with a line to measure whether there is an upward, downward, or stable trend in nomophobia behavior. Based on the graph analysis, the trend during this phase showed a flat pattern, meaning no significant increase or decrease in the subject's nomophobia behavior. From the first to the fifth session, the subject's nomophobia behavior remained at 90%, indicating that without intervention, this behavior tended to stay stable. This trend estimation is further visualized in the following graph:

The stability trend during the Baseline A1 phase was determined using a stability criterion of 15%, where behavior is considered stable if the stability percentage falls within the range of 80%-100%. According to the calculations, the stability of the subject's nomophobia behavior reached 100%, indicating that the subject's behavior remained consistent over the five observation sessions. Within this range, the data showed that the subject's behavior remained at the same level, between 92.075 and 91.925, confirming no significant variation in the subject's nomophobia behavior. This stability confirms that the baseline phase meets the criteria to proceed to the intervention phase.

During the Baseline A1 phase, the data trace showed a flat pattern, meaning the subject's behavior remained stable throughout the observations. Over five sessions, no significant changes were observed in the subject's behavior, supporting the conclusion that nomophobia behavior did not decrease or increase. Subsequently, the level change was analyzed by comparing the data from the first and last sessions. The calculation results showed no level change between these sessions, with a 0 (92 - 92 = 0) difference. This indicates that the subject maintained the same behavior during the baseline phase without any spontaneous changes.

Based on all the analyses conducted in the Baseline A1 phase, the subject's nomophobia behavior showed very high stability. Over five observation sessions, there were no significant changes in the subject's behavior regarding direction, stability, or level changes. With a stability rate of 100%, these results indicate that the subject requires external intervention to modify their smartphone dependency. Therefore, the next phase will focus on implementing Self-Management techniques to determine whether significant changes occur after the intervention is applied.

3.2. Overview of the Implementation of the Self-Management Technique

Implementing the Self-Management technique to reduce nomophobia behavior was carried out over five sessions between April 1 and June 30, 2024, encompassing all stages of Self-Management theory.

Session 1: Problem Identification. In the first session, the counselor and the subject focused on identifying the issue-nomophobia behavior and the situations that triggered addictive smartphone use. The subject was guided to understand how this behavior impacted their academic and social lives and to reflect on their smartphone usage patterns. This stage was critical as the subject began identifying specific situations that triggered anxiety when not using their smartphone. This served as a foundational step in addressing the addictive behavior.

Sessions 2 and 3: Setting Goals for Behavior Change. The second stage was implemented in the subsequent sessions, where the subject worked on setting specific goals for reducing smartphone usage. In the second and third sessions, the counselor supported the subject in planning strategies to achieve these goals using stimulus control techniques and behavior contracts. The subject was encouraged to gradually reduce their smartphone usage, for instance, from five hours to four hours daily. Additionally, the subject learned to modify their environment to reduce smartphone triggers, such as placing the device out of reach while studying or avoiding bringing it to bed.

Sessions 4 and 5: Strategy Planning and Evaluation. The third and fourth stages—planning strategies to address situations triggering excessive usage and evaluating progress—were implemented during the fourth and fifth sessions. Together, the counselor and the subject reviewed the progress, evaluated the effectiveness of the applied strategies, and identified challenges faced during the process. The subject also engaged in self-reinforcement as motivation for success, such as rewarding themselves when they successfully reduced their smartphone usage duration.

Final Session: Reflection and Maintenance Strategies. In the final session, a reflection on the overall process was conducted, focusing on the subject's achievements and strategies for maintenance to prevent a relapse into nomophobia behavior in the future.

3.3. Intervention Phase (B)

The analysis during the Intervention Phase (B) aimed to observe changes in the subject's nomophobia behavior after implementing the Self-Management technique. Observations revealed a significant reduction in nomophobia behavior as the intervention progressed. The subject's behavior demonstrated a consistently declining trend over five sessions (sessions 6 through 10). In session 6, the subject recorded a nomophobia score of 88%, which decreased to 56% by session 10. This reduction indicates that the application of the Self-Management technique contributed to lowering dependency on smartphones.

Table 2. Results of Intervention Phase (B) for Nomophobia Behavior

Session	Maximum Score	Intervention Score (A1)	Score
6	25	22	88
7	25	20	80
8	25	18	72
9	25	16	64
10	25	14	56

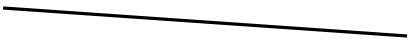
The Intervention condition (B) lasted for five sessions, during which the subject consistently showed a decrease in scores. A trend analysis was conducted to identify the pattern of behavioral changes in the subject during the intervention phase. Using the Split-Middle method, the data median from the first session (sessions 6 to 8) was 80%, while the median from the second session (sessions 9 and 10) was 60%. The trend line drawn from these two medians shows a significant downward trend, indicating that the intervention successfully reduced nomophobia behavior in the subject.

To assess the stability of the subject's behavior during the Intervention phase (B), a stability criterion of 15% was used. Based on the calculation, the mean level during the intervention was 72%, with a stability range between 72.075 and 71.925. These results show that the subject's behavior during the intervention phase was stable, with no significant fluctuations in the observed data. This stability is important because it indicates that the reduction in nomophobia behavior during the intervention phase remained consistent, without any behavior spikes that might suggest instability in the response to the intervention.

Data trail analysis shows that during the Intervention phase (B), the subject's behavior exhibited a consistent downward trend from session to session. Based on the stability range analysis, the range between 72.075 and

71.925 confirms that the subject's behavior remained within the defined stability limits. This consistency indicates that the self-management technique given to the subject successfully controlled nomophobia behavior, so the behavior continued to decrease without significant variation during the intervention phase.

Table 3. Data Trail Trend in the Intervention Condition (B)

Condition	Intervention (B)
Trend of Data Trace	
	(-)

The level change was calculated by comparing the score from the first session (session 6) with the score from the last session (session 10). In the first session, the subject scored 88%; in the last session, the score dropped to 56%. The 32-point difference indicates that the Self-Management technique significantly reduced the subject's nomophobia behavior. This level change confirms that the intervention strongly impacted reducing the subject's dependency on smartphones over the five observation sessions.

3.4. Analysis of the Baseline A2 Condition

During the Baseline A2 phase, observations were made to see how the subject's nomophobia behavior developed after the intervention was discontinued. This phase aimed to determine whether the subject reverted to their original behavioral pattern or was able to maintain the changes achieved during the intervention. From the data collected during the five observation sessions (sessions 11 to 15), the subject's nomophobia score ranged from 48% to 60%, with slight fluctuations. Despite a small increase in session 12 (60%), the subject's behavior score gradually decreased, reaching 48% in the last session. This indicates that the subject maintained a decreased behavior after the intervention was stopped.

Table 4. Nomophobia Behavior Observation Results in the Baseline A2 Condition


Session	Maximum Score	Intervention Score (A1)	Score
11	25	14	56
12	25	15	60
13	25	14	56
14	25	13	52
15	25	12	48

The duration of the Baseline A2 phase consisted of five sessions, similar to the previous intervention phase. After the intervention phase ended, the goal was to provide a comprehensive overview of the subject's nomophobia behavior pattern. A trend analysis was conducted to assess whether there were significant changes during the Baseline A2 phase. Based on the analysis, the median for sessions 11 to 13 was 56%, while the median for sessions 14 and 15 was 50%. This flat trend line indicates no major changes in the subject's behavior during this phase despite slight fluctuations in the earlier sessions. This stability suggests that the effects of the intervention persisted.

The stability of the subject's behavior during the Baseline A2 phase was assessed using a stability criterion of 15%. Based on the calculation, the subject's average score was 54.4%, with a stability range between 54.475 and 54.325. This shows that the subject's nomophobia remained stable throughout the five observation sessions. No significant fluctuations were found in the subject's behavior, indicating that the intervention applied in the previous phase successfully suppressed nomophobia behavior and maintained its stability.

The data trail produced during the Baseline A2 condition shows a consistent downward trend, with scores decreasing from 56% in session 11 to 48% in session 15. This data suggests that the subject successfully maintained the reduction in behavior after the intervention was discontinued. The stability level during this phase was calculated using the range between 54.475 and 54.325, confirming that the subject's behavior remained consistent within the established stability range. This consistency reinforces that the changes observed during the intervention phase were sustained in the post-intervention phase.

Table 5. Trend Estimate in the Baseline A2 Condition

Condition	Baseline A2
Estimated Directional Trend	
	(-)

The level change between the first session (session 11) and the last session (session 15) shows a significant decrease. In the first session, the subject's nomophobia score was 56%; in the last session, it dropped to 48%, resulting in a difference of 8 points. This decrease indicates that the subject successfully maintained the positive changes achieved during the intervention phase, even after the intervention was stopped. Thus, the Baseline A2 phase shows that the subject's nomophobia behavior remained stable and consistently decreased, reflecting the long-term success of the intervention.

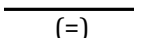
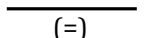
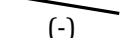
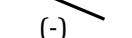
3.5. Analysis of Conditions

The analysis between conditions was conducted by comparing the data collected during the three research phases: Baseline A1, Intervention B, and Baseline A2. This analysis aimed to observe the changes and differences in the subject's nomophobia behavior from the initial phase to the final phase after the Self-Management technique intervention was applied. From this comparison, we can see how the subject's behavior changed significantly across each phase, particularly in terms of reducing smartphone dependency behavior. In the Baseline A1 phase, the subject's behavior remained stable at around 90%, then significantly decreased during the intervention phase and stabilized again in the Baseline A2 phase, with the final score reaching 48%. This change demonstrates that the Self-Management technique effectively reduced the subject's nomophobia behavior.

Table 6. Number of Variables to Be Changed

Condition comparison	B/A1	A-2/B
Number of variables to be changed	1	1

Table 7. Changes in Directional Tendency and Effects

Condition comparison	B/A1		A2/B	
Changes in directional trends and their effects				





The change in the trend direction of the subject's behavior between phases shows a consistent downward trend. In the Baseline A1 phase, the subject's behavior was stable, but the data showed a significant decrease when the intervention was applied. This trend continued into the Baseline A2 phase, where the subject's behavior remained consistently reduced, indicating that the intervention had a long-term effect in reducing nomophobia behavior. Additionally, the trend of stability increased between these conditions. In both the intervention and post-intervention phases, the subject's behavior remained stable, indicating that the Self-Management technique successfully maintained behavioral changes over a longer period.

The level change in data between the Baseline A1 phase and the Intervention B phase shows a significant decrease. The subject's initial score in the Baseline A1 phase was around 90%, while in the intervention phase, the score dropped to 56%. This downward trend continued in the Baseline A2 phase, with the final score reaching 48%. This confirms that the subject responded well to the intervention, and the change in nomophobia behavior is evident from the difference in data levels between these conditions. The decrease in level demonstrates the effectiveness of the Self-Management technique in reducing nomophobia behavior.

Data overlap was used to measure any overlap between data from one phase to the next. In the comparison between Baseline A1 and Intervention B, no data overlap indicated that the subject's behavior changed significantly after the intervention. With an overlap percentage of 0%, this indicates that the intervention effectively reduced nomophobia behavior. On the other hand, in the comparison between Intervention B and Baseline A2, all data overlapped within the stability range, with an overlap percentage of 100%. This shows that the subject's behavior remained consistent and stable after the intervention ended, confirming the long-term effects of the intervention.

Based on the analysis of the conditions, it can be concluded that the self-management technique successfully reduced nomophobia behavior significantly in the research subject. The changes in trend direction, stability, and data levels show a consistent decrease from the Baseline A1 phase to the Baseline A2 phase. There was no data overlap between the Baseline A1 and Intervention B phases, strengthening the effectiveness of the intervention. Additionally, the stability of the subject's behavior after the intervention was maintained, indicating that the changes achieved during the intervention could be sustained in the long term.

Table 7. Summary of Between-Condition Data Analysis Results

Condition comparison	A1/B		B/A2	
Number of Variables	1		1	
Changes in directional trends and their effects				
	(=)	(=)	(-)	(-)
	Leveling off (stable)		Decreasing	
Change in stability trend	Stable to Stable		Stable to Stable	
Level change	2 - 1		2 - 2	
	1		0	
Presentase overlap	0%		100%	

Based on the analysis above, the between-condition data analysis shows that the self-management technique effectively reduces nomophobia, with immediate results observed during the intervention phase (B) and lasting after the intervention ended. The data demonstrates sustained and consistent behavioral change over the long term without repeated interventions. This technique addresses short-term issues and builds self-management skills that enable individuals to maintain outcomes independently.

3.2. Discussion

The results of this study show that the application of the self-management technique was highly effective in reducing nomophobia behavior in the research subject. The consistent decrease in nomophobia scores across each phase indicates that this technique was able to modify the excessive smartphone dependency behavior. In the Baseline A1 phase, the subject showed stability in nomophobia behavior with a score of around 90%, without significant changes. This suggests that, before the intervention, the subjects had a very high dependency on their phone, consistent with previous findings regarding nomophobia among adolescents (Widyastuti & Muyana, 2019). Subsequently, in the Intervention B phase, a significant change was observed. The subject's nomophobia score consistently decreased from 88% in the first session to 56% in the last session. This decrease shows that the self-management technique was successful in reducing smartphone dependency. This aligns with Bandura's (1991) self-regulation theory, which emphasizes the importance of self-monitoring and evaluation in behavior regulation. The research subject identified undesirable behavior patterns and actively modified them through structured strategies (Putri & Sanyata, 2023).

The self-management technique not only supports the findings of Günlü and Baş (2022) about the importance of self-control in overcoming nomophobia symptoms but also provides a more comprehensive framework for managing smartphone use independently. Good self-control helps individuals reduce excessive anxiety when away from their phones. The fulfillment of psychological needs such as autonomy and competence is crucial in building effective self-control, and the self-management technique plays a key role in this process. With continuous self-monitoring and evaluation, individuals can recognize addictive habits and take steps to limit phone use. Widyastuti and Muyana's (2019) research supports this by showing that the self-management approach through group counseling is effective for vocational high school students who suffer from smartphone addiction, helping them reduce anxiety and improve time management and focus on studying. The significant reduction in nomophobia shows that this technique helps address short-term issues and encourages more stable and long-lasting behavioral changes.

In the Baseline A2 phase, the stability of the nomophobia score of around 48% after the intervention was stopped provides important insight into the effectiveness of the self-management technique in maintaining behavioral changes. This stability suggests that, even though the active intervention had ended, the subject could independently manage their behavior related to smartphone use. In the context of this study, this phenomenon supports the theory proposed by Grady and Gough (2014), which emphasizes that self-management is not just focused on short-term behavioral change but also on the process of internalizing behavior changes that allow individuals to maintain positive outcomes in the long term.

Furthermore, Torpil & Pekçetin (2021) also found that self-management-based time management interventions improved time productivity and significantly reduced nomophobia symptoms. This approach shows that,

with proper management, individuals can reduce their smartphone dependency and improve productivity in daily life. This is particularly relevant in academic and professional contexts, where excessive smartphone use often negatively impacts performance and productivity. Therefore, the absence of data overlap between the Baseline A1 and Intervention B phases and the stability of scores in the Baseline A2 phase confirms that the self-management intervention caused behavioral changes. These findings strengthen the relevance of this technique as an effective solution for addressing nomophobia in adolescents, especially in maintaining the consistency of behavioral changes during and after the intervention.

4. RESEARCH IMPLICATIONS

The results of this study have significant implications in several aspects, both theoretical and practical. Theoretically, the self-management technique has proven effective in reducing nomophobia behavior and helping individuals recognize and modify their smartphone dependency. These findings suggest that the self-management approach can serve as a reliable framework for developing independent behavior, where individuals are capable of effective self-monitoring, evaluation, and self-control. The consistent reduction in nomophobia behavior in the subject indicates that this intervention not only brings about short-term change but also helps the subject maintain positive changes over the long term after the intervention has ended.

Practically, the findings of this study offer great potential for application in educational and psychological intervention contexts. In school settings, self-management can be adopted as part of guidance and counseling programs to help students manage their smartphones more wisely, reducing excessive anxiety and enhancing academic productivity. Additionally, in clinical contexts, this technique can be used as an effective intervention method for addressing technology addiction and related psychological issues, such as social anxiety and sleep disorders, which often arise from excessive smartphone use. Thus, this research makes a tangible contribution to addressing the growing issue of nomophobia in this digital age.

5. CONCLUSIONS

This study demonstrates that the self-management technique effectively reduces nomophobia behavior in adolescents. The results show a significant decrease in smartphone dependency during the intervention phase and the stability achieved after the intervention was stopped. The research subject was able to recognize and independently modify their addictive behavior, indicating that this technique successfully encouraged long-lasting behavioral change. Moreover, this study provides evidence that self-management can be integrated into school counseling programs and used in clinical settings to address technology addiction and psychological issues related to excessive smartphone use. Therefore, the self-management technique is an effective and reliable solution to address nomophobia among adolescents.

This study shows that the implementation of self-management techniques, which include time management, controlling cell phone usage, and self-control, is effective in reducing anxiety and dependence on mobile phones (Nomophobia) among vocational high school students (SMK). These techniques help students become more aware and controlled of their phone usage, thereby reducing its negative impact on their psychological well-being. Using the Single Subject Research (SSR) method, this study successfully demonstrated consistent changes at the individual level, providing evidence that self-management techniques can be effectively applied to reduce Nomophobia in SMK students. Although each trial involved only one subject, these findings offer a deeper understanding of the changes that can occur at the individual level.

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AUTHOR CONTRIBUTION STATEMENT

All data presented in this article are the results obtained in the field; the authors are fully responsible for all data in this study.

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