

## Research

# Treatment for social media addiction with hypnotic-oriented counseling

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## Abstract

**Background** Research has identified social media addiction as a new and often unrecognized clinical disorder that impacts users' ability to control social media use which can lead to relational, work, and social problems. Adolescent who experiences addiction to social media will be very dependent and willing to spend a long time accessing social media so that they experience addiction to social media. This paper reports the findings of a study that used an A-B-A single-case research design to investigate the effect of hypnotherapy to reduce social media addiction in adolescents. Participants consisted of two high school students (N = 2) who had social media addiction behavior in the severe category. Hypnotic-oriented counseling interventions in reducing social media addiction was provided in 5 sessions. Treatment focused on enhancing motivation, emotional release, conflict resolution and empowerment using direct suggestion, parts therapy, circle of excellence technique and anchor. Participants completed the Social Media Addiction Scale for Adolescent. Data was collected before, during, and after the hypnotic-oriented counseling intervention.

**Result** Students who took part in hypnosis-oriented counseling sessions experienced a significant reduction in social media addiction symptoms during and after the intervention. They report becoming increasingly able to manage social media use healthily.

**Conclusion** Hypnotic-oriented counseling intervention was effective in reducing social media addiction symptoms in students.

**Keywords** Social media addiction · Hypnosis · Single case research design · Hypnotic-oriented counseling

## 1 Introduction

The highest number of users of social media in Indonesia are Adolescent with an age range of 13–24 years. The platforms they use the most are WhatsApp at 87.7%, Instagram at 84.8%, Facebook at 85.5%, and the fastest increasing, namely TikTok at 63.1%, increased from the previous year, which was only 38.7% [1]. With so many social media platforms and easy access to use the internet, it can bring up the potential for problematic social media use, namely the irrational and excessive use of social media so that it interferes with aspects of daily life because adolescent feel able to interact with other people from different regions or countries, without the need to think about distance and time barriers [2, 3].

Adolescent who experience addiction to social media will be very dependent on social media so that they lose control of their use and preoccupation with social media in the end it can interfere with adolescents' ability to manage school-work and their responsibilities as students and even replace offline social activities with peers and school activities with

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social media because on social media adolescents will feel satisfaction that cannot be obtained in real life and adolescents can easily fake their identity [4]. This is in line with research conducted by [3] where the duration of social media use greatly influences social media addiction because more time is spent accessing social media than studying so it affects time management that has been made and affects academic achievement at school. Researchers have suggested that the excessive use of new technologies especially online social media may be particularly problematic to young people [5]. Etiology of addictions and the syndrome model of addiction claimed that those people addicted to using social media experience symptoms similar to those experienced by individuals who suffer from addictions to substances or other behaviors [5]. Compulsive behavior in using social media will lead young people to experience social media addiction [6, 7]. In line with [3] suggest that the transition from normal to social media addiction use occurs when social media is viewed by the individual as an important mechanism to relieve stress, loneliness, or depression. They contend that those who frequently engage in social networking are poor at socializing in real life. For these people, social media use provides such people continuous rewards and they end up engaging in the activity more and more, eventually leading to many problems and ignoring real life relationships, work and education [7].

Social media addiction can be categorized as a behavioral addiction characterized by excessive worry about social media, being unable to control oneself in using social media, and being willing to spend time just accessing social media [8]. According to [5] social media addiction is a behavior of losing self-control in using social media accompanied by significant disturbances in daily life. Meanwhile, according to [9], social media addiction is a pattern of excessive behavior in the use of social media, which is characterized by the need and desire to carry out activities on social media, and the increasing frequency of time using social media from time to time because it has a pleasant effect but can be detrimental, and have a negative impact on the individual. There is a tendency where adolescents have addictive behavior towards social media due to experiencing pressure, stress, or depression related to life's problems, so to reduce this pressure adolescents try to immerse themselves in the use of social media, because through social media adolescents can freely forget what they are doing think about and think that the longer the time spent on social media, the less problems and pressure you will have [10, 11]. This is reinforced by research conducted by [12] namely the transition from normal social media use to addiction is seen as an important mechanism for reducing stress, loneliness, and depression in individuals which causes them to become more active and spend more time on social media. When individuals find themselves unable to access social media, they will feel anxious and uncomfortable, because social media addiction behavior is influenced by a person's thoughts about something, so that it often results in feeling problems such as depression, anxiety, anger, and humiliation when unable to access social media, and also dysfunctional behaviors such as obsessive and procrastinating [13, 14]. This can happen because social media provides satisfaction and trust to individuals which causes the time to use it to always increase, and in the end individuals experience problems such as ignoring face-to-face relationships, face-to-face communication difficulties, and worsening mental conditions that individuals don't want [7].

Individuals who spend a lot of time on social media tend to have a desire to find out information quickly for fear of being left behind or commonly called Fear Of Missing Out (FoMO) which can lead to increased tolerance in using social media [12], unable to control themselves so increasing tolerance in social media use [15], having feelings of stress, anxiety, anxiety, and depression when unable to access social media [7], decreased academic achievement due to experiencing delays in collecting school assignments and do not have time to study because they spend more time on social media [16], cannot overcome academic problems due to reduced ability to adjust their thoughts and emotions [17, 18], and have a low quality of life [19, 20]. In addition, the addictive use of social media will also be seen as other addictive disorders such as preoccupation, tolerance, withdrawal, persistence, escape, problems, deception, displacement, and conflict [6]. In other words, individuals who consider social media as the most important activity will lose control over their thoughts, feelings, and actions when using social media because social media has dominated the daily lives of individuals [4].

Social media addiction is a behavioral disorder and hypnotic-oriented counseling is a technique that can be used to overcome behavioral deviations [21]. Behavior change can occur if it is carried out directly at the level of the individual's subconscious mind because the subconscious mind understands reality based on real experience and can influence as much as 88% in an individual's life [22]. By using a hypnotic-oriented counseling approach, the counselor can facilitate the counselee to instill positive suggestions that can produce the desired behavior change by the counselee [23]. There is a similarity between the phenomenon of social media addiction and the phenomenon of hypnosis, namely when using social media the individual is in a trance state so that the focus of attention and absorption of the individual increases in the activities carried out, as a result of the distortion of time used during hypnosis and when using social media [24]. This phenomenon shows that counselees who experience addiction to social media are people who easily enter a hypnotic state and tend to follow suggestions under hypnosis [25]. Based on the phenomena that have been described, it shows that individuals who have addictive behavior towards social media need treatment, because if left untreated

it will affect their daily behavior and emotions that change easily [26]. The use of hypnosis in counseling is commonly referred to as hypnotherapy which refers to the use of language patterns and hypnotic states, as a complement to and supports the counselor's main approaches such as gestalt, cognitive-behavior therapy, reality, or rational emotive behavior therapy, and serves as an additional technique that can be used with any other main technique. commonly used to obtain more effective results [27]. The use of hypnotic-oriented counseling interventions in dealing with addiction problems has been carried out by several researchers and has proven effective in dealing with addiction problems, as has been done by [21, 23, 28–31].

The role of the counselor in hypnotic-oriented counseling is as a facilitator who facilitates the counselee for the process of solving problems by using subconscious language such as positive suggestions that can motivate counsees to change [32, 33]. By using hypnosis, counselors can help counsees to reduce negative habits or behavior patterns in using social media without causing side effects, because the purpose of hypnotic-oriented counseling is to empower and foster a sense of mastery and self-control in using social media [34]. Hypnotic-oriented counseling also views that humans are individuals who are intelligent, rational, creative, and have the ability to find and solve the problems they currently have [32]. In addition, to prevent a relapse in social media addiction behavior, counsees will practice self-hypnosis with the aim of relaxing themselves when experiencing stress and anxiety because they cannot use social media [34]. Hypnotic conditions can also reduce levels of stress, anxiety, and depression due to decreased levels of excess hormones that affect stress by modifying the counselee's thinking style to eliminate bad habits such as social media addiction while in a hypnotic state [35, 36].

Hypnosis is also seen as a set of skills aimed at facilitating self-control of addictive behavior and motivation to change, because hypnotic suggestions encourage relaxation, commitment to quit, the ability to control oneself, mood management, and the development of a healthy lifestyle [28]. Self-control is the ability to rule out or change unwanted behavior and refrain from doing so, so that individuals have the ability to regulate and control themselves so that more positive behavior changes occur [37]. By utilizing the hypnotic condition, the counselor can facilitate the counselee to release himself from problems and negative behavior that is usually done daily, by giving positive suggestions to encourage the counselee to be able to modify ingrained cognitive behavior so that he can control his cognitive behavior [38]. This is in line with the opinion [39] which views that individuals have a great ability to be able to understand themselves and change the concept of behavior so that it is more focused and becomes more positive. Therefore, the purpose of this study is to determine the effectiveness of hypnotic-oriented counseling in reducing social media addiction.

## 2 Method

### 2.1 Ethical approval

The Research Ethics Committee of the Faculty of Education, University of Muhammadiyah Tasikmalaya-Protocol Number 067.d/1.3.UMTAS/L2/PGT/2022 approved the study. We carried out this study in conformity with the Ethical Principles of Psychologists and Code of Conduct as set out by the American Psychological Association. Before engaging in a counseling session, the participant and counselor make a counseling contract that includes agreed information about the activities during the research. The participant was provided with an information sheet at the pre-counseling meeting and agreed that the information could be collected and used in the case study. Each session is recorded with client consent and given the opportunity if the client wants to stop recording. Clients are invited to comment and change personal details before publication.

### 2.2 Participant

Participants were high school students aged between 16 and 17 years and had social media addiction behavior in the severe category. Two participants were chosen because they met the criteria to be research subjects, were willing to voluntarily take part in the counseling intervention and had obtained consent from both parents. Subjects use pseudonyms to maintain confidentiality.

Participant 1. Andri is a 17 year old high school student and has an older brother. Andri feels that since Covid-19 his use of social media has increased every day just to relieve his boredom because he can't leave the house and can't play with his friends, so all Andri does is play social media to find entertainment so he doesn't feel bored or looking for the

information the Andri needs. The impact of the activity of using social media that Andri are doing makes Andri personally lazy and feel worried and anxious if they don't open social media because they are afraid they will miss the latest information conveyed by social media.

Participant 2. Nisa is a high school student who is 16 years old and has a twin sister. Nisa always locked himself in his room and spent his time playing social media because Nisa felt that if he did not open social media, Nisa would feel restless and anxious because he was afraid of missing information about one of his favorite K-Pop idols and always wanted to be the first to know information about the idol and the Nisa would be disappointed if they found out about it from someone else.

### 2.3 Procedure

This research is an experimental research that is used to find the effect of giving treatment at different times to research samples [40]. The type of experiment used is single case research because researchers are trying to study and observe individual behavior from time to time over a certain period with the aim of seeing the effect of the intervention given [41]. The research design used is the A-B-A design, which is a design that requires repetition in the baseline phase with the aim of controlling the condition of the sample before and after the intervention is given, so that conclusions can be drawn and show a causal relationship between the dependent variable and the independent variable [42].

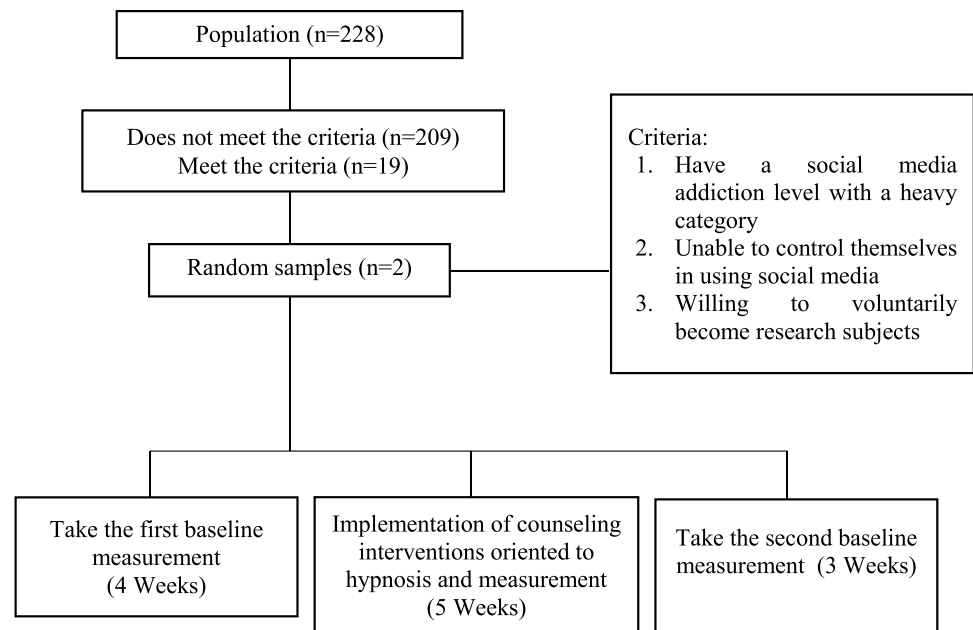
The sampling technique used in this study is non-probability sampling with purposive sampling which is a sampling technique and determination based on certain considerations [41]. The researcher conducted an initial measurement of all 228 participants ( $M = 43.83$ ,  $SD = 10.46$ ) to obtain an overview of social media addiction before selecting research subjects for intervention. Furthermore, after getting an overview of the results of the initial measurement scores related to the level of social media addiction, the researcher obtained two students ( $N = 2$ ) who experienced moderate and severe levels of social media addiction, and met the criteria in selecting the sample. The social media addiction score calculated shows that the range of scores 16–37 indicates the level of social media addiction in the normal category, scores 38–48 indicates a mild social media addiction level, scores 49–59 indicates a moderate social media addiction level, and scores 60–80 indicates severe category social media addiction level. Participant 1 got a score of 59, and participant 2 got a score of 65.

The next step is to make a schedule for taking measurements in the baseline phase (A1) for each selected subject. Participant 1 was given 4 measurements, and participant 2 was given 3 times since the baseline phase (A1). Then after obtaining stable data, the selected subjects participated in an intervention session consisting of 5 sessions for 5 weeks. The procedures used in the implementation of the intervention are carried out based on the protocol that has been prepared according to the stages in the hypnotic-oriented counseling intervention. Counseling was carried out face-to-face for 60 min, and each subject session was evaluated regarding changes that had occurred, obstacles to achieving change, and efforts that had been made when experiencing obstacles and when trying to achieve change. Every three days since the subject attended the intervention session, the subject is given measurements to get an overview of the changes that have occurred after attending the counseling session. This is done so that the counselor knows the extent to which changes and decreases in social media addiction have occurred to the subject.

The counseling stages used in reducing social media addiction are hypnotic-oriented counseling stages described by [34, 43] which have five core stages of hypnotic-oriented counseling, namely pre-induction, induction, strategy therapy, post hypnotic inquiry, and homework. Furthermore, the subject was given a baseline measurement (A2) three times to measure the subject's condition after being given a hypnotic-oriented counseling intervention. The results of the baseline measurement (A2) will be compared with the results of the baseline measurement (A1) to see the changes that have occurred and to see the effectiveness of providing hypnotic-oriented counseling interventions in reducing social media addiction. The flow diagram is presented in Fig. 1.

### 2.4 Hypnotic-oriented counseling intervention

The procedure used in the implementation of hypnotic-oriented counseling to reduce social media addiction is based on the utilization of hypnotic conditions by providing positive suggestions to modify negative behavior and foster self-control abilities in using social media [34]. The techniques used in hypnotic-oriented counseling interventions in reducing social media addiction use strategies that have been carried out by [34, 43–45].

**Fig. 1** Procedure for determining research subjects

The first session is the motivational phase focused on increasing motivation with direct suggestion techniques which aim to provide positive suggestions so that the client is able to develop their own abilities in using social media. The counselor guides the client to imagine that he or she has been able to escape from social media addiction and provides suggestions for self-control abilities. The second session is the emotional release phase using parts therapy techniques. The counselor guides the client to let go of negative emotions that hinder self-change by communicating with the negative part of themselves within themselves that always inhibits positive change. The aim of this phase is to create a peace process between the client and their negative part so that they are able to control themselves to free themselves from dependence on excessive use of social media. The third session is the conflict resolution phase. The client will communicate again with every part of the subconscious mind that can cause inner conflict by using parts therapy techniques to find positive parts within the client that will support and help the client to make changes in a more positive direction. The fourth session, the empowerment phase, is focused on focusing the client's attention on success by using the circle of excellence technique with the aim that the client is no longer controlled by pleasure and is wiser in using social media. The counselor guides the client to imagine a circle of success, namely in the form of a detailed visual picture of positive changes in himself after getting rid of social media addiction. The goal is to empower clients to change permanently. In the fifth session, the counselor will evaluate the changes that occur in the client's series and help the client to make a plan so that he is committed to preventing relapse by using anchors as a stimulus to control himself in using social media.

The following is the schedule and sequence of hypnotic-oriented counseling sessions that will be carried out for five weeks which will be presented in Table 1.

## 2.5 Measurement

The instrument used is the Social Media Addiction Scale for Adolescent developed by [46] with a theoretical basis [6, 47] which consists of 16 statements. The scoring technique used in the Social Media Addiction Scale is a Likert scale with 5 answer choices, namely Never = 1, Rarely = 2, Sometimes = 3, Often = 4, and Very Often = 5. An example of an item statement on the Media Addiction Scale Social namely "I use social media longer than the specified time". The Social Media Addiction Scale gets a reliability score of  $\alpha = 0.830$  which shows that the level of correlation and degree of reliability is in the very high category, so the Social Media Addiction Scale is adequate and can be used as a standard instrument and can be used in research.

*Social Validation.* Social validation data was collected post-intervention to explore participants' perceptions and feelings regarding the intervention. Participants participated in an online focus group facilitated by a practitioner unknown to the participants to minimize social desirability [48]. Social validation provides qualitative data that increases the researcher's understanding of the outcomes and effectiveness of the intervention [36, 42]. Participants

**Table 1** Schedule and order of counseling sessions

Phase	Session	Objective	Activity
Motivational	1	The counselee is able to increase motivation to change behavior patterns and have full control over what is done	<ul style="list-style-type: none"> <li>• Build a good relationship with the counselee</li> <li>• Identify the counselee's problems related to patterns of social media usage</li> <li>• Providing education about hypnosis</li> <li>• Using direct suggestion techniques</li> <li>• Provide worksheets</li> <li>• Teaches self-hypnosis</li> </ul>
Emotional Release	2	The counselee is able to recognize the negative parts in himself and release all his emotions on the negative parts so that the peace process occurs	<ul style="list-style-type: none"> <li>• Evaluate the changes that have occurred after attending the previous counseling session</li> <li>• Using parts therapy techniques</li> <li>• Helping counsees identify the negative parts that exist in him that hinder to change</li> <li>• Provide worksheets</li> </ul>
Conflict Resolution	3	The counselee is able to communicate with the subconscious which causes inner conflict so that he finds positive parts that exist within the counselee	<ul style="list-style-type: none"> <li>• Evaluate the changes that have occurred after attending the previous counseling session</li> <li>• Using parts therapy techniques</li> <li>• Helping the counselee identify the positive parts that exist in him that support the change</li> <li>• Provide worksheets</li> </ul>
Empowerment	4	The counselee is able to focus his attention and focus on success	<ul style="list-style-type: none"> <li>• Evaluate the changes that occurred after attending the previous counseling session</li> <li>• Using circle of excellence technique</li> <li>• Ask the counselee to imagine a circle of success and take all the positive energy that is in the circle</li> <li>• Provide worksheets</li> </ul>
	5	The counselee has a plan to commit to prevent recurrence by making an anchor	<ul style="list-style-type: none"> <li>• Evaluate the changes that occurred after attending the previous counseling session</li> <li>• Using evaluation and anchor techniques</li> <li>• Help the counselee to make plans and anchors to prevent recurrence</li> <li>• Provide worksheets</li> </ul>



were asked open-ended questions that gathered insight into the usefulness, relevance, and impact of hypnotic-oriented counseling on participants' thinking and behavior.

## 2.6 Data analysis

A single case research study with an A-B-A design was used to collect measurement data from the baseline phase (A1), the intervention phase (B), and the baseline phase (A2) which aims to see the effect of the intervention by comparing and seeing changes in scores between the baseline phase and the intervention, because single case research refers to the reliable effect of the intervention on the dependent variable [40, 42]. The results of collecting all existing data since the baseline phase and the intervention phase are made into graphical form so that they can be seen visually so that conclusions can be made about changes in behavior based on the characteristics of the visible data [49].

An important component that is analyzed is how the target behavior of each target/object changes from the baseline phase to the intervention phase where changes can be evaluated based on the magnitude of the target behavior (mean and level) in all conditions which refer to the average change in the target frequency, and the level of slope (trend and latency) which refers to a shift in the direction of behavior during the baseline and intervention phases [50]. The aspect that determines the effect or effectiveness of the intervention is the change in trend or direction of the data after the intervention is given to the target/object which can be seen from the trend in the direction of the data whether it has decreased or increased over time [51].

The effectiveness of hypnotic-oriented counseling interventions in reducing social media addiction can be analyzed by calculating the Percentage of Non-Overlapping Data (PND) between the baseline and the intervention which aims to measure the effect of the given intervention [52]. PND is calculated by making a horizontal straight line from the lowest value in the baseline phase (A1) which serves as a visual analysis to determine the number of points that are below the horizontal line, then calculating the number of lowest scores that do not overlap with the horizontal line in the phase intervention (B) is then divided and multiplied by 100 [49].

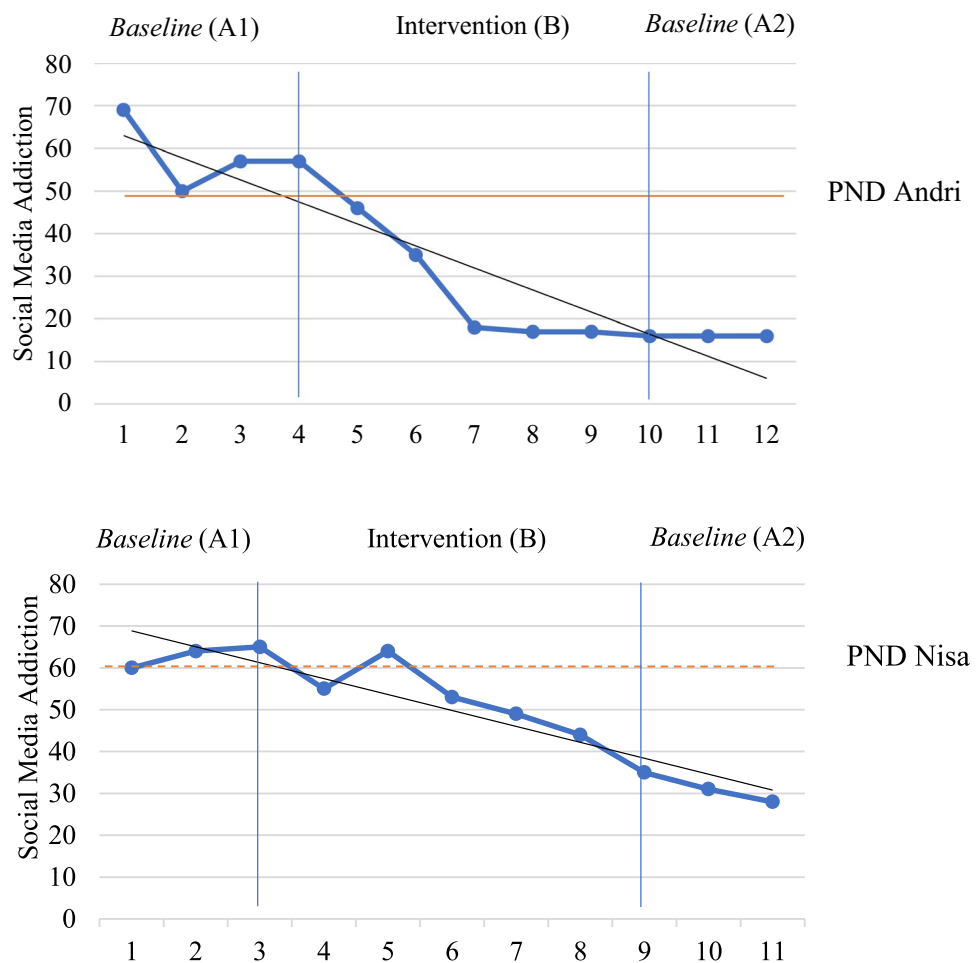
To see the effect of intervention in single case research, it can be calculated using Cohen's formula which shows that if the result is  $< 0.87$  then it shows a small intervention effect, if it is between 0.87 and 2.67 then the intervention effect is medium, and if you get a score  $> 2.67$  hence the effect of the intervention is large [48]. Meanwhile, to see the magnitude of the changes that occur in each participant can be calculated using the reliable change index (RCI), if the results show greater than 1.96 then there is a significant change in research participants [53].

## 3 Result

### 3.1 Total social media addiction

The results of social media addiction data from each participant in all research phases presented in Fig. 2 as a whole experienced a significant decrease. Participant 1 showed a decrease of ( $d = 4.01$ ) in total social media addiction from the pretest phase ( $M = 58.25$ ,  $SD = 7.89$ ) to during the intervention phase ( $M = 26.6$ ,  $SD = 13.28$ ) and during the post-intervention phase ( $M = 16$ ,  $SD = 0$ ). Participant 2 showed a decrease of ( $d = 3.38$ ) total social media addiction from the pretest phase ( $M = 63.00$ ,  $SD = 2.65$ ) to during the intervention phase ( $M = 53.00$ ,  $SD = 7.45$ ) and during the post-intervention phase ( $M = 31.3$ ,  $SD = 3.51$ ). This shows that the social media addiction score has decreased from the baseline phase (A1) to the baseline phase (A2). Furthermore, to see the magnitude of the effect of the intervention can be done by calculating the Percentage Non-Overlapping Data (PND). The results showed that the intervention effect on the Andri counselee was 100% indicating that hypnotic-oriented counseling intervention was very effective in reducing social media addiction behavior, while for Nisa counselees the intervention effect was 80% indicating that hypnotic-oriented counseling was effective in reducing social media addiction. This can be seen from the RCI calculation results which show a significant change in total social media addiction since the pretest and post-hypnotic-oriented counseling intervention phases for all participants.

**Fig. 2** Changes in participant 1 and 2 in social media addictive behavior in all conditions



**3.2 Total dimensions of social media addiction**

The data results for the dimensions of mood modification for each participant in all phases of the study are presented in Table 2. Participant 1 showed a moderate decrease ( $d = 1.49$ ) in the mood modification score from the pretest phase ( $M = 6.5, SD = 2.08$ ) to during the intervention ( $M = 3.4, SD = 1.67$ ) and during the post-intervention phase ( $M = 2, SD = 0$ ). Participant 2 showed a small decrease ( $d = 0.4$ ) in mood modification score from the pretest phase ( $M = 7, SD = 1$ ) to during the intervention phase ( $M = 6.6, SD = 0.89$ ) and during the post-intervention phase ( $M = 4.33, SD = 0.58$ ). The RCI calculation results showed that there was a significant change in participant 1, but not significant in participant 2.

The results of the data on the tolerance dimensions of each participant in all research phases are presented in Table 2. Participant 1 showed a large decrease ( $d = 12.1$ ) in the tolerance score from the pretest phase ( $M = 9.25, SD = 0.5$ ) to during the intervention phase ( $M = 3.2, SD = 1.79$ ) and during the post intervention phase ( $M = 2, SD = 0$ ). Participant 2 showed a small decrease ( $d = 0.08$ ) in tolerance scores from the pretest phase ( $M = 7.33, SD = 1.53$ ) to during the intervention phase ( $M = 7.2, SD = 1.10$ ) and during the post-intervention phase ( $M = 4, SD = 0$ ). The RCI calculation results showed that there was a significant change in participant 1, but not significant in participant 2.

The data results for the displacement dimensions of each participant in all study phases are presented in Table 2. Participant 1 showed a moderate decrease ( $d = 1.68$ ) in displacement scores from the pretest phase ( $M = 7.5, SD = 1.73$ ) to during the intervention phase ( $M = 4.6, SD = 2.30$ ) and during the post intervention phase ( $M = 2, SD = 0$ ). Participant 2 showed a large decrease ( $d = 5.98$ ) in displacement scores from the pretest phase ( $M = 9.67, SD = 0.58$ ) to during the intervention phase ( $M = 6.2, SD = 1.10$ ) and during the post-intervention phase ( $M = 3.67, SD = 0.58$ ). The RCI calculation results showed that there was a significant change in participant 2, but not significant in participant 1.

The results of the data on the escape dimensions of each participant in all phases of the study are presented in Table 2. Participant 1 showed a moderate decrease ( $d = 1.25$ ) in escape scores from the pretest phase ( $M = 6.5,$



**Table 2** Total scores of social media addiction and dimensions of social media addiction during the baseline phase (A1), intervention phase (B), and baseline phase (A2) for all participants

Scale	Pre-Test		During		Post-Test		Gain	RCI	Effect size	
	M	SD	M	SD	M	SD				
<i>Total social media addiction</i>										
Participant 1: Andri	58.25	7.89	26.6	13.28	16	0	31.65	8.09	4.01	
Participant 2: Nisa	63.00	2.65	53	7.45	31.3	3.51	10.33	6.81	3.38	
<i>Mood Modification</i>										
Participant 1: Andri	6.5	2.08	3.4	1.67	2	0	3.1	2	1.49	
Participant 2: Nisa	7	1.00	6.6	0.89	4.33	0.58	0.4	0.54	0.4	
<i>Tolerance</i>										
Participant 1: Andri	9.25	0.5	3.2	1.79	2	0	6.05	14.1	12.1	
Participant 2: Nisa	7.33	1.53	7.2	1.10	4	0	0.13	0.1	0.08	
<i>Displacement</i>										
Participant 1: Andri	7.5	1.73	4.6	2.30	2	0	2.9	1.79	1.68	
Participant 2: Nisa	9.67	0.58	6.2	1.10	3.67	0.58	3.47	6.38	5.98	
<i>Escape</i>										
Participant 1: Andri	6.5	2.65	3.2	1.64	2	0	3.3	1.68	1.25	
Participant 2: Nisa	6.67	0.58	6	1.41	4.33	0.58	0.67	1.55	1.16	
<i>Withdrawal</i>										
Participant 1: Andri	9.25	0.96	4	2.83	2	0	5.25	7.72	5.47	
Participant 2: Nisa	8.67	0.58	7	1.41	3.67	0.58	1.67	4.06	2.88	
<i>Deception</i>										
Participant 1: Andri	4.5	1	2	0.00	2	0	2.5	2.48	2.5	
Participant 2: Nisa	6.67	0.58	6.8	0.84	3.67	0.58	-0.13	-0.22	-0.22	
<i>Relapse</i>										
Participant 1: Andri	6.5	1	3	1.41	2	0	3.5	4.24	3.5	
Participant 2: Nisa	8.67	0.58	6.8	1.10	4	0	1.87	3.9	3.22	
<i>Conflict</i>										
Participant 1: Andri	8.25	1.5	3.2	1.79	2	0	5.05	4.03	3.37	
Participant 2: Nisa	8.33	0.58	6.4	1.14	3.67	1.15	1.93	3.98	3.33	

SD = 2.65) to during the intervention phase (M = 3.2, SD = 1.64) and during the post intervention phase (M = 2, SD = 0). Participant 2 showed a moderate decrease (d = 1.16) in the escape score from the pretest phase (M = 6.67, SD = 0.58) to during the intervention phase (M = 6, SD = 1.41) and during the post-intervention phase (M = 4.33, SD = 0.58). The results of RCI calculations show no insignificant changes in participants 1 and 2.

The data results for the withdrawal dimensions of each participant in all phases of the study are presented in Table 2. Participant 1 showed a large decrease (d = 5.47) in the escape score from the pretest phase (M = 9.25, SD = 0.96) until during the intervention phase (M = 4, SD = 2.83) and during the post intervention phase (M = 2, SD = 0). Participant 2 showed a large decrease (d = 2.88) in the withdrawal score from the pretest phase (M = 8.67, SD = 0.58) to during the intervention phase (M = 7, SD = 1.41) and during the post-intervention phase (M = 3.67, SD = 0.58). The RCI calculation results showed significant changes in participants 1 and 2.

The data results for each participant's deception dimension in all research phases are presented in Table 2. Participant 1 showed a large decrease (d = 2.5) in deception scores from the pretest phase (M = 4.5, SD = 1) through to the intervention phase (M = 2, SD = 0) and during the post intervention phase (M = 2, SD = 0). Participant 2 showed a very small decrease (d = -0.22) in deception score from the pretest phase (M = 6.67, SD = 0.58) but increased during the intervention phase (M = 6.8, SD = 0.84) and again decreased during the intervention phase. post intervention (M = 3.67, SD = 0.58). The RCI calculation results showed a significant change in participant 1, but not significant in participant 2.

The results of the data on the dimensions of relapse for each participant in all phases of the study are presented in Table 2. Participant 1 showed a large decrease (d = 3.5) in the relapse score from the pretest phase (M = 6.5, SD = 1) to during the intervention phase (M = 3, SD = 1.41) and during the post intervention phase (M = 2, SD = 0). Participant 2 showed a large decrease (d = 3.22) in relapse scores from the pretest phase (M = 8.67, SD = 0.58) to during the

intervention phase ( $M = 6.8$ ,  $SD = 1.10$ ) and during the post-intervention phase ( $M = 4$ ,  $SD = 0$ ). The RCI calculation results showed significant changes in participants 1 and 2.

The data results for the dimensions of conflict for each participant in all research phases are presented in Table 2. Participant 1 showed a large decrease ( $d = 3.37$ ) in conflict scores from the pretest phase ( $M = 8.25$ ,  $SD = 1.5$ ) to during the intervention phase ( $M = 3.2$ ,  $SD = 1.79$ ) and during the post intervention phase ( $M = 2$ ,  $SD = 0$ ). Participant 2 showed a large decrease ( $d = 3.33$ ) in conflict scores from the pretest phase ( $M = 8.33$ ,  $SD = 0.58$ ) to during the intervention phase ( $M = 6.4$ ,  $SD = 1.14$ ) and during the post-intervention phase ( $M = 3.67$ ,  $SD = 1.15$ ). The RCI calculation results showed significant changes in participants 1 and 2.

### 3.3 Social validation

Social validation data collected at the end of the study showed that participants gained new skills from the hypnotic-oriented counseling intervention. Participant Andri reported that hypnosis-oriented counseling intervention could reduce his perceived social media addiction. This is evidenced by a change in the participant mindset and behavior, where before the intervention was carried out the counselee always felt unable to control himself in using social media so he was willing to spend his time just opening social media because he had the thought that "I can't control myself in using media social media". He reported that after being given the intervention, the counselee felt able to control himself in using social media "I was able to control myself in using social media", this was proven by the reduction in the duration of social media use and changes in the counselee's behavior, namely interacting more with people in the surrounding environment.

Participant Nisa showed that the use of hypnotic-oriented counseling interventions was effective in reducing social media addiction. Before the intervention was given, the counselee did not care about the environment around him because he always kept quiet in his room to use social media, and in the end had the thought "I feel anxious and afraid of missing information" conveyed by social media. In line with the opinion of when individuals already have addictive behavior and are accustomed to excessive use of social media, their lives are strengthened by the desire to know what other people say and do at any time on social media, so social media has an important role in individuals which will cause individuals to feel anxious and worried when they cannot use social media. After the intervention was given, the counselee began to try to ignore and control his feelings of anxiety about social media by caring more about and socializing with people around him. Overall, the social validation data indicated that the intervention was effective in helping participants change their behavioral responses to addiction, as reflected in changes in scores on the Adolescent Social Media Addiction Scale. He stated that he was aware of this. Participants were satisfied with the conduct of the sessions by the primary researcher and found that the application of hypnotic-oriented counseling not only helped with self-control, but also had a positive impact on academic performance. Participants said they were more productive and no longer procrastinated on schoolwork.

## 4 Discussion

The purpose of this study is to determine the effectiveness of hypnotic-oriented counseling to reduce social media addiction. The results of the study show that hypnotic-oriented counseling is effective in reducing social media addiction. Visual analysis showed each participant's consistent decline in total social media addiction scores from the pre-intervention, during and post intervention. In addition, the effectiveness of hypnotic-oriented counseling is also supported by the reduction of each dimension of social media addiction except the escape dimension. These changes indicate one of the basic goals of hypnotic-oriented counseling, namely to empower counselees to grow a sense of mastery and self-control in using social media, so that counselees can control themselves in using social media [34]. Counselees are also taught self-hypnosis to accelerate changes in social media addiction behavior by relaxing themselves when experiencing stress because they cannot access social media, and increasing motivation to reduce symptoms of social media addiction by encouraging counselees to maintain behavior changes that have occurred and apply the results of counseling into everyday life [35, 54]. The results of this study are supported by some literature that uses hypnotic-oriented counseling in reducing addiction [23, 28, 54]. When individuals have social media addiction behavior they will lose control over their use, and make social media something important so that when their use is limited they will feel stressed, anxious, and in the end they are willing to spend a long time just using social media so conflicts occur with other people-people in their environment [6, 47].

The results of this study indicate that the use of hypnotic-oriented counseling interventions provides effective results in social media addiction such as the dimensions of displacement and withdrawal. This happens because, during the counseling process, the counselor can provide positive suggestions with the aim that the counselee can generate well-being which includes positive social relationships, life balance, and obtaining the desired goals [55, 56]. In addition, the counselor also takes advantage of the counselee's hypnotic condition which can produce cognitive, perceptual, and kinesthetic changes under controlled conditions along with the counselee's experience [57]. Counselees who have participated in hypnotic interventions also experience a decrease in the relapse dimension, because during the counseling process the counselee is taught to do self-hypnosis and make anchors that aim to prevent recurrence because of the strong anchors that are embedded in the counselee [34]. In addition, self-hypnosis and anchors can also increase the ability to control oneself in counselees because they can be done easily and can be done at any time when needed [30].

In the conflict dimension, the counselee also experiences changes because during the counseling process, the counselee learns to recognize the inner parts that cause inner conflict so that they can make peace with themselves [45]. When the counselee is in a hypnotic state, the counselor gives positive suggestions to encourage the counselee to be able to modify the negative behavior that is inherent in the counselee, which aims to facilitate the counselee to be free from negative beliefs and habits that are usually carried out every day. Because positive suggestions can encourage relaxation, the ability to control oneself, mood management, development of a healthy lifestyle, and commitment to change in a more positive direction [28, 38]. This change shows that one of the goals of counseling is to reduce negative behavior patterns that are always carried out by counselees in using social media by fostering a sense of mastery over self-control in using social media [34]. This happens because individuals who have addictive behavior towards social media will lose self-control when using social media, resulting in increased tolerance in using social media and ignoring conditions that exist in real life [25].

However, in the tolerance dimension there is no change in participant 2 because the counselee always wants to use social media to get entertainment from her favorite idol because they are people who always support and give happiness to the counselee so that the counselee forgets the problems he is having. This is in line with the opinion of [7] social media can be an important mechanism for eliminating problems that are currently owned by individuals because social media provides continuous rewards that individuals cannot get in real life such as satisfaction and self-efficacy. The escape dimension was not significant for both participants. This shows that the use of social media as an escape mechanism from problems has a negative coping effect in the form of a momentary release of stress [7, 15]. Social networking sites play a role in causing stress, the use of hypnotherapy can reduce stress levels, because it can reduce excess hormone levels that influence stress itself [35].

Based on the discussion that has been presented, it generally shows that after attending a hypnosis-oriented counseling session, clients have new skills such as being able to control themselves in using social media, being more attentive to their surroundings, and being able to interact with other people. In line with the aim that the goal of hypnotic-oriented counseling is to empower individuals so that they are able to generate life welfare related to social relations, have awareness of what is being done and have full control over their lives.

## 5 Conclusion

In light of the current study, it can be concluded that hypnotic-oriented counseling is effective in reducing social media addiction in students. This can be seen from the trend in the social media addiction score graph since the pre, during, and after intervention. In addition, it can also be seen in the changes that the counselee shows in each counseling session where the counselee is able to control himself in using social media, does not feel anxious and worried anymore if he does not open social media, plays more often outside the home by communicating with friends, and able to be more concerned with the surrounding environment and not focus on using social media.

## 6 Limitations

In the data collection process, this study only used social media addiction instruments repeatedly from the baseline to the intervention phase. For further research, it is expected to be able to add the use of self-control instruments or other instruments to be used in the measurement process. Second, the sample in this study is relatively small in terms of using a single case study, therefore future research can use a larger sample such as using groups for interventions so

that there is a lot of variation in the results of the research. Third, students who do not attend counseling sessions can be used as control subjects in research that is only given regular services as a comparison between those who are given intervention and those who are not.

## 7 Implications

This research is an experimental research that is expected to strengthen developments regarding the use of hypnotic-oriented counseling models, which in particular can add to the literature on the effectiveness of hypnotic-oriented counseling in overcoming individual problems, especially those related to social media addiction. The results of this study can also be used by school counselors to provide services to students in overcoming social media addiction behavior so that students have self-control behavior in using social media and achieve success in both academic and non-academic fields.

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**Data availability** The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

## Declarations

**Consent to participate** Informed consent was obtained from legal guardians.

**Competing interests** The authors declare that they have no competing interests.

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