

## Efficacy of Hypnotic Guided Imagery (HGI) Towards People with Depression

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**Abstract.** It is well known that people with depressive illnesses are not very satisfied with their lives. There is a need to reduce depression's symptoms in such ways so that the burden can be reduced. An intervention called Hypnotic Guided Imagery (HGI) was proposed to address this problem. Previously, HGI has been proven to be effective as a therapy to decrease depressive symptoms towards people with depression. The purpose of this study is to evaluate the efficacy of HGI in virtual settings as a psychotherapy substitute for individuals with depressive disorders. This study employs an experimental methodology and a control group with a pretest-posttest design. Participants included up to 10 Indonesians that suffered from depression that was diagnosed earlier by doctors. They were split into intervention and control groups and the PANAS-X and PHQ-9 were given to the participants before and after intervention as an instrument to test the efficacy of HGI. Hypothetically, HGI has the capability to decrease depressive symptoms among people with depression. Proven, HGI has an effect on both the reduction of some unpleasant emotions and the enhancement of other positive ones. This promising finding leads to the conviction suggesting HGI has many more to offer.

**Keywords:** experiment; depression; hypnotic guided imagery

According to the World Health Organization (WHO, 2023), depression is the mental condition that affects people worldwide most frequently and is the leading cause of individual impairment or years spent with disability (Risikesdas, 2018). According to the DSM-5, major depressive disorder is usually described by clients as feelings of deep sadness. The main signs of depression are gloomy mood, lack of interest and enthusiasm, and low energy levels that result in increased tiredness and reduced activity (Maslim, 2013). According to the findings of Basic Health Research in Indonesia (Risikesdas, 2018), there are 6.1% or over 14 million adults over the age of 15 who reported having a depressive condition. Depression is an example of an emotional and behavioural problem in teenagers (Bembnowska, 2015). Despite having 260 million people, Indonesia only has 773 psychiatrists and 451 clinical psychologists (Jakarta Post, 2018). According to the Indonesian Clinical Psychology Association (2023), only 600–800 psychiatrists practice in Indonesia, which counts 3,323 verified clinical psychologists as of September 20, 2021. Every year, the population of Indonesia grows; as recorded in 2019, there were 270.6 million people living there (Kemendagri, 2023). To tackle the lack of psychologist resources, WHO

(2023) has established a threshold for the number of psychologists and psychiatrists per 30,000 individuals.

Up to now, pharmaceutical, and psychological therapy have been used to treat depressive illnesses (Dirgayunita, 2016 & WHO, 2023). Pharmacological therapy, which involves administering antidepressant medications, is carried out in accordance with WHO (2023), but this therapy is only effective in people with moderate to severe depression. Behavioural therapy (WHO, 2023), cognitive behavioural therapy (Susana, 2015, Rachmani & Mayasari, 2017), interpersonal psychotherapy (Corsini & Wedding, 2010, Kurniawan & Noviza, 2017), and clinical hypnosis are some of the methods used in psychotherapy for depressed individuals (Shih et al., 2009, Bran et al., 2012, Untas, 2013). The study's conclusions state that therapeutic hypnosis, also known as hypnotic guided imagery (HGI) in this study, requires a lot of time yet is frequently quicker than other forms of psychotherapy (Heap, 2017).

According to data from Houle et al. (2013), people who prefer psychotherapy are less fortunate than people who prefer pharmaceuticals. This unfavourable situation exists because psychotherapy is fraught with difficulties. According to Mohr et al. research's findings (2006; 2010), these difficulties might be caused by both practical and emotional issues. Individuals with depression find it challenging to commit to a psychotherapy procedure that requires a specific length of time due to these emotional and practical concerns (Mohr, 2006; 2010). According to research on the use of hypnosis for treating disorders related with chronic pain, it is helpful for regulating several pain features such as severity, perceived control, sensation, duration, and pain interference (Aravena, 2020). Understanding this issue, Hypnotic Guided Imagery has the capability to eliminate this problem because it only takes 15-20 minutes per session to have an effect (Patricolo, 2017). Given the widespread ideas that depression hinders hypnotic responsiveness and that hypnosis may aggravate suicidal behavior in depressives, hypnosis has not been widely employed in the treatment of depression (Alladin, 2010; 2012).

The effectiveness of online HGI has also been stated in a previous study from Rao (2016) suggesting that online guided imagery training is effective and is encouraged to be practised by a wide variety of diversity. A type of psychotherapy known as hypnotic guided imaging employs guided imagery techniques in a hypnotic setting. In order to access memories connected to an issue that is suppressed in the subconscious mind, clinical hypnosis uses trance conditions (Shenefelt, 2018). Clinical hypnosis employs therapeutic suggestions to expand the mind and enable the mind-body link, resulting in beneficial behavioural, emotional, and physical changes and utilising the mind to enhance both physical and mental health (Elkins et al., 2012; Raz, 2011). Guided imagery, on the other hand, is a dynamic procedure in which clients are encouraged to picture and feel an actual situation that is proposed or directed by the therapist within themselves without the use of any outside stimuli (Menzies & Taylor, 2004). According to Bernardy et al. (2011), the therapist's ideas and directives are brought up and altered in the form of subjective

experiences, which might alter feelings, perceptions, thoughts, and behaviour toward events or objects.

The stages of therapy used in HGI (Rossman, 2018) are as follows. 1) first steps, attempting to establish a rapport with the client that helps them feel at ease in order to explore their past issues in greater detail, including the timeline of incidents involving issues or experiences involving clients' positive and negative emotions; 2) Hypnosis explanation, which seeks to give information on clinical hypnosis. 3) induction and deepening: the therapist induces the client into a deeper trance; 4) establishment of the problem: the therapist probes the client's subconscious to discover the core issue; 5) problem-solving: the therapist resolves the core issue by performing emotional correction; and 6) ego strengthening and post-hypnotic suggestions: the therapist reinforces the client's ego by making suggestions that will help him improve his self-confidence, self-esteem, and help the client to utilise the resources that exist within him. Following the hypnosis session, the client receives termination sessions that are prioritised according to how ready they are to regain consciousness.

Over the past 20 years, research on the role of HGI in treating depressive disorders has advanced rapidly. For instance, Kumar & Singht (2015) and Setyadi et al. (2016) discovered that HGI can diminish the symptoms of depression in haemodialysis patients as well as in those with PLHIV. In addition, the HGI group experienced more significant alterations than the gestalt-hypnosis group and the control group (Ramirez et al., 2017). As per experimental research by Chiu et al. (2018), participants who received HGI showed greater decreases in anxiety and depression than those who only received standard psychiatric care. Additionally, Chiu et al. (2018) hypothesised that in addition to HGI's capacity to significantly lessen anxiety and sadness, its administration to experimental subjects was thought to be safe and infrequently resulted in specific side effects. Based on the findings of these investigations, Chiu et al. (2018) asserted that hypnotherapy training should be systematic and that health professionals should actively promote its use in mental health care. Rao (2016) suggests that online training for mind-body skills is practical and effective. Adding on, online training is typically less expensive and more convenient than in-person training.

The systematic literature review study by Ulfah and Yuniarti (2021) and the meta-analysis study by Shih et al. (2009) both produced consistent findings, namely that HGI can greatly lessen depression symptoms. According to earlier research by McCann and Landes (2010), there is a need for studies on the efficacy of HGI in people with depression. Furthermore, Ulfah and Yuniarti systematic analysis of the literature from 2021 reveals that no HGI studies have looked at depressive disorders without congenital or associated conditions. Based on the description provided above, the purpose of this study was to evaluate the efficacy of HGI, a psychotherapy alternative that is used to treat depression in patients. Amongst the debate, the hypothesis for this research is that the online method of HGI has the capability to decrease depressive symptoms among people with depression.

## Methods

### *Variable Identification*

Depressive symptoms have been valued as a dependent variable in this research. Based on the DSM-5 Manual (Maslim, 2013) depression is a frequent and dangerous mental illness also known as major depressive disorder or clinical depression. Those who are depressed have constant feelings of despair and hopelessness and stop being interested in the things they used to like. In addition to the emotional challenges brought on by sadness, some people may also experience physical symptoms including persistent pain or digestive problems. Depression must be diagnosed when symptoms last for at least two weeks. HGI as an independent variable is defined as a form of psychological intervention that uses guided imagery techniques in a hypnotic approach to bring individuals into a trance/relaxed state that is focused and has a high level of suggestibility, so that they can access past experiences that have negative feelings to be reconstructed (Ulfah, 2021). With the aid of this HGI technique, people can reframe emotional unfavourable past experiences in order to alter views and enhance their personal health circumstances.

### *Participant*

This study used an experimental pretest-posttest and a control-group methodology. In this study, participants were collected through stratified sampling and were randomly assigned to two groups, each of which contained five participants with depressive illnesses. The intervention group and the control group were each given a total of 10 participants. Participants in this study had to meet the following requirements: 1) be between the ages of 21 and 60. This is the age group in which depression has been recorded (WHO, 2023); 2) receive a diagnosis of depression from a psychologist or psychiatrist, as demonstrated by a statement from the doctor within the same week before the first session.; 3) be willing to adhere to COVID-19 health procedures and all online and offline research activities, as demonstrated by signing an informed consent; 4) not have a comorbid physical illness; and 5) not be participating in psychotherapy or other research. The demographic data of participants can be seen in Table 1.

**Tabel 1.***Participant Demographic Data*

College	Experimental Group	Control Group	N
Gender			
Male	1	2	3
Female	4	3	7
Age			
21	0	1	1
22	1	1	2
23	1	0	1
25	2	2	2
28	0	1	1
29	1	0	1
32	0	1	1
36	0	1	1
Occupation			
Undergraduate	3	2	5
Postgraduate	0	1	1
Teacher	1	0	1
Non-government Organisation	1	1	2
Government workers	0	1	1

*Research Procedure and Recruitment*

Recruitment flyers were distributed on social media in order to find participants. People interested in participating in the research can sign up using Google Forms. After receiving several responses from participants to take part in this research, the researcher re-asked candidates about their readiness to give informed permission and required a diagnostic letter as a prerequisite for participation in the study. Then, prospective individuals who had provided informed consent and a letter of diagnosis to enter the intervention and control groups equally were randomly assigned using the website randomized.org.

Before the first therapy session, the participants in the control and intervention groups were asked to complete the Patients Health Questionnaire-9 and Positive Affect Negative Affect Scale-X pre-tests as part of the initial implementation phase. The intervention group will also get three sessions of online HGI therapy from the clinical therapist that has taken HGI training and has been practising HGI for more than a decade. Each session of HGI takes about 15-20 minutes excluding rapport building session and debriefing. During the intervention, participants were being asked to enter the intervention room. Each session includes all the steps of HGI. In the room, a psychologist and technician will be present to observe and ensure the entire process is carried out accordingly. The therapist, however, did not present on the site. A live session with the therapy will be held to conduct the therapy. One week break was given between each session. The HGI intervention was not administered to participants in the control group. Control group

however only had a talking session about the participants' day and thanked them for attending and participating in filling in PANAS-X and PHQ-9 questionnaires. Participants in both the intervention and control groups received a post-test on the PANAS-X and PHQ-9 scales following the completion of all sessions.

*HGI Intervention Stages*

Using the idea of clinical hypnosis and the theoretical framework of Brann, Owens, and Williamson, Prof. Kwartarini Wahyu Yuniarti, M.Med.Sc., Ph.D., and Adi W. Gunawan developed the HGI intervention module as a best practice (Bran et al., 2012). The Aiken's V content validity coefficient for this HGI module ranges from 0.75 to 1.00. Hypnotic Guided Imagery (HGI) therapeutic techniques include the following in Table 2.

**Table 2**

*Stages and Purpose of HGI*

Stages	Purpose
1 Opening	to establish a therapeutic alliance with clients and investigate their issues.
2 Introduction and relaxation practice HGI	to dispel misconceptions and false beliefs about HGI, eliminate fear, and teach clients how to employ the strategies that will be applied during HGI.
3 Induction and Deepening	to use eye lock techniques, physical relaxation—such as raising an arm—and mental relaxation—such as eye rolling—to put the client into a trance or relaxed state.
4 Establishing the Problem	to investigate the client's primary issues from the past, specifically situations that included unfavourable feelings and resulted in depressive illnesses.
5 Resolving the Problem	to resolve issues with emotional correction that have been discovered in accordance with the objectives of treatment. Initial memory reconstruction, or altering the image of a negative experience, is how emotional correction is accomplished. This results in a shift from initially negative to positive or neutral emotions.
6 Ego Strengthening and post-hypnotic suggestions	to lock suggestions and get the client ready to come back to consciousness so that the beneficial adjustments made can be maintained, boost self-esteem, and assist clients in using the resources or strengths they already possess.

*Instruments*

*Patient Health Questionnaire Scale (PHQ-9)*

The PHQ-9 scale has 9 self-report items and has 4 choices Likert scale answers on each item. The nine self-report items on the PHQ-9 scale are organised according to the DSM-5's major depressive symptoms. The PHQ-9 is a versatile instrument for screening, diagnosing,

monitoring, and assessing depression severity: n The PHQ-9 is a brief self-report tool that combines DSM-IV depression diagnostic criteria with additional main major depressive symptoms. PHQ-9 was used to measure depressive symptoms in patients (Sun, 2020). This instrument has been translated to Indonesian Language and has been validated and the correlation is confirmed to be significant from the original version (Dian, 2022, Der Linden, 2019) and was implemented in accordance with the research of *Komersialisasi Instrumen Deteksi Perubahan Energi Negatif ke Positif pada Proses Terapi Kesehatan Mental dan Fisik*. 2019. The Perceptions of Difficulty in the Functioning of Daily Life findings can be found in the PHQ-9 scale.

#### *The Expanded form of Positive and Negative Affects Schedule (PANAS-X) Scale*

The PANAS-X scale, which Watson and Clark (1999) developed from PANAS, is specifically used in this study to measure emotional states, including both positive and negative emotions. The PANAS-X scale consists of five emotional states: general positive emotions, general negative emotions, basic positive emotions, basic negative emotions, and additional emotions. It comprises 60 self-report items. PANAS-X was used to justify HGI effects on participants. This instrument has been translated to Indonesian Language in accordance with the research of *Komersialisasi Instrumen Deteksi Perubahan Energi Negatif ke Positif pada Proses Terapi Kesehatan Mental dan Fisik*. 2019

#### *Data Analysis*

Statistical software called Jamovi was used to analyse both descriptive and inferential data for this study. Before hypothesis testing was being conducted an assumption test in the form of a normality test with the Shapiro-Wilk test and a homogeneity test with the Levene's test was used. After the test was done, Paired Sample T-test and Independent Sample T-test was run. An Independent Sample T test was being done to identify whether the presence of HGI has any impact on both groups. On the other hand, the Paired Sample T Test was being done to measure the difference between two groups measurement if they are zero or not. In contrast, the Mann-Whitney test and the Wilcoxon signed-rank tests are used to get different conclusions about your data based on the assumptions you make about its distribution.

#### *Ethical Clearance*

This research has been registered for ethical clearance from the Faculty of Psychology, Gadjah Mada University with the reference number KE/FK/1010/EC September 9, 2021. This research is sub-research from bigger research that is being carried out by Kwartarini Wahyu Yuniarti in the research of *Komersialisasi Instrumen Deteksi Perubahan Energi Negatif ke Positif pada Proses Terapi Kesehatan Mental dan Fisik*. 2019.

## Result

### *Hypothesis Testing*

During the pre-test and post-test, participants in the intervention and control groups were administered the PHQ-9 scale to gauge how severe their depressed symptoms were prior to and following the intervention. The difference between the intervention and control groups' PHQ-9 pre-test and post-test scores (gain scores) was examined using a paired sample t-test. Table 2 lists the outcomes of the various tests. The PHQ-9 paired sample t-test findings revealed that there was no discernible difference between the intervention group and the control group before and after the HGI intervention ( $t(4) = 1.73; p = 0.159; p > 0.05$ ). The average depressed symptom score decreased in both the control group and the intervention group, according to the results of the pre-test and post-test gain scores in both groups. However, the intervention group's change in gain scores ( $MD = 6.80$ ) was still superior in comparison to the control group ( $MD = 5.20$ ). Table 5 depicts variations in functioning life for each individual prior to and following the intervention.

According to the results from table 3, four out of five individuals in the intervention group (I2,I3,I4,I5) and the control group (K2,K3,K4,K5) reported less complaints of depressed symptoms after completing the PHQ-9 for both pre- and post-tests. Only one individual in each of the control (K1) and intervention groups (I1) indicates an increase in gain score. Individuals in the control group exhibited complaints of depression symptoms in the range of mild to severe categories. The intervention group members, on average, exhibited complaints of depressed symptoms in the range of categories Minimal to severe for post-test because it fulfilled the test assumption that the data is normal ( $p = 0.131; p > 0.05$ ) and homogeneous ( $p = 0.297; p > 0.05$ ), a different test using an independent sample t-test was utilised to identify the disparity in PHQ-9 scores between the intervention and control groups. Table 4 displays the difference of test results for the PHQ-9 for the intervention and control groups.

### *Perceptions of Difficulty in the Functioning of Daily Life*

Before and after receiving therapy, participants in the control group and the intervention group completed the same PHQ-9 scale question about their impressions of how life functions. A functional health assessment is also included in the instrument. This question asks the patient how emotional challenges or problems affect employment, home life, or relationships with others. Patients who respond with 'very tough' or 'very difficult' indicate that their functionality is hindered. Following the start of treatment, functional status and numerical score can be used to assess patient improvement. Table 5 displays the findings from the pre-test and post-test of the perceptions of difficulty on life functioning.

In the intervention group, four out of the five individuals reported fewer problems with daily functioning, whereas the fifth person reported no change, as shown in table 5 above. The pre-test results for the intervention group revealed that the range of live



functional difficulty was between very slight difficulty and high difficulty. A decrease in difficulty functioning between a very slight difficulty and a slight difficulty was also seen in the post-test intervention group's results. It is also apparent from Table 5 above that the three individuals in the control group (K1,K2,K3) did not encounter a change in the range of difficulty to function in daily life, remaining in the high difficulty and slight difficulty ranges. K4's range of life functioning issues increased from slight difficulty to high difficulty. The spectrum of life functioning challenges for K5 decreased from Very High difficulty to High difficulty.

*Emotional Measurement*

Before and after receiving therapy, participants in the intervention and control groups completed the PANAS-X scale. The general positive emotion (GPE), general negative emotion (GNE), basic positive emotion (BPE), basic negative emotion (BNE), and additional emotions make up the five components of the PANAS-X scale. Emotional measurement is needed because it exists to prove the effectiveness of HGI. HGI has the capabilities to increase positive emotions and decrease negative emotions.

*Measurement of Positive and Negative Emotions*

The gain scores for basic and general emotions, both negative and positive, can be seen in Table 6. It can be observed that there is a significant difference in the increase of positive emotions and decrease in negative emotions.

*Other Emotional Measurements*

The other emotions on the PANAS-X scale include multiple emotions as follows: lethargic, tired, sorry, tired, relaxed, calm, comfortable, low self-esteem, shy, shy when interacting with others, feeling embarrassed, surprised, amazed/amazed, and amazed. The other emotion gain score results can be seen in Table 7. Observing Table 7, it can be seen that positive emotions have an increase to it whereas negative emotions have slight decrease in the intervention group.

**Tabel 3.**

*Result of Hypothesis Testing T test*

	Mean		MD	t	df	Sig.
	Pretest	Post-test				
Intervention	16.20	9.40	-6.80	1.73	4.00	0.159
Control	17.20	12.0	-5.20	1.81	4.00	0.144

Note. Sig\* < 0.05

**Table 4.***Result of Pretest and Posttest PHQ-9*

Group	Participant	Pre PHQ	Category	Post PHQ	Category	Gain Score
Intervention	I1	13	Moderate	16	Moderate-severe	3
	I2	4	Minimal	3	Minimal	-1
	I3	26	Severe	6	Mild	-20
	I4	27	Severe	20	Severe	-7
	I5	11	Moderate	2	Minimal	-9
Control	K1	14	Moderate	19	Moderate-severe	5
	K2	15	Moderate-severe	6	Mild	-9
	K3	22	Severe	14	Moderate	-8
	K4	8	Mild	5	Mild	-3
	K5	27	Moderate	16	Moderate-severe	-11

Note. 1 – 4 = Minimal Depression 5 – 9 = Mild Depression; 10 – 14 = Moderate Depression; 15 – 19 = Moderate-severe depression; 20 – 27 = Severe Depression.

**Table 5.***PHQ-9 Difference T Test between Groups.*

	MD	Sig.	d
Post-test	-2.60	0.585	0.360
Pre-test	-1.00	0.862	0.114

Note. Sig. \* < 0.05

**Table 6.***Pre-test and Post-test Results of Perceptions of Difficulty in the Functioning of Daily Life*

Group	Participant	Pre-test	Post-test
Intervention	I1	Slight Difficulty	Slight Difficulty
	I2	Slight Difficulty	Very Slight Difficulty
	I3	High Difficulty	Slight Difficulty
	I4	High Difficulty	Slight Difficulty
	I5	Slight Difficulty	Slight Difficulty
Control	K1	High Difficulty	High Difficulty
	K2	Slight Difficulty	Slight Difficulty
	K3	High Difficulty	High Difficulty
	K4	Slight Difficulty	High Difficulty
	K5	Very High Difficulty	High Difficulty

**Table 7.***Gain Scores of Basic and General Emotions both Negative and Positive from PANAS-X Scale*

	GPE	GNE	BPA	BNA
<b>Intervention</b>				
<i>Pre</i>	32.8	37.8	18.53	19.15
<i>Post</i>	38.6	15.8	23.46	9.6
<i>Mean Difference</i>	5.8	-22	4.93	-9.55
<b>Control</b>				
<i>Pre</i>	30.4	29.8	18	17.85
<i>Post</i>	29.6	29.4	16.93	16
<i>Mean Difference</i>	-0.8	-0.4	-1.07	-1.85

Note. GPE: General Positive Emotions, GNE: General Negative Emotions, BPA: Basic Positive Emotions, BNA: Basic Negative Emotions.

**Table 8.***Gain Score Results of Other Emotions from The PANAS-X Scale.*

Emotion	<i>Pre</i>	<i>Post</i>	<i>Mean Difference</i>
<b>Intervention</b>			
Fear	23.6	9.6	-14
Hostility	20	10.8	-9.2
Guilt	17.2	11.2	-6
Sadness	19.8	6.8	-9
Joy	25	32	7
Confidence	18.6	24.4	5.3
Attentive	12	14	2
Embarrassed	10.8	5.6	-5.2
Tired	15.4	7.2	-8.2
Calm	7	13	6
Easily Surprised	9.4	8.6	-0.8
<b>Control</b>			
Fear	19	17	-2
Hostility	16.2	14.6	-1.6
Guilt	16.2	15.4	-0.8
Sadness	20	17	-3
Joy	22.6	21.8	-0.8
Confidence	19.6	18.4	-1.2
Attentive	11.8	10.6	-1.2
Embarrassed	12	10.2	-1.8
Tired	14.6	14	-0.6
Calm	10.2	9.6	-0.6
Easily Surprised	8.2	7.4	-0.8

## Discussion

This research is to identify the efficacy of HGI towards people with depression. Based on the statistical analysis, HGI was not proven to decrease depressive symptoms. Therefore, the hypothesis was not proven. One main problem that has been identified is that intervention was done online. By adopting digital-based treatment, therapists are unable to see body language or vocal cues (Nuna, 2021). Moving on, in crisis situations, this is not possible. Because internet therapists are geographically separated from their clients, it is difficult for them to respond swiftly and effectively when a crisis develops (Nuna, 2021). These signs can frequently be quite revealing and help the therapist have a better understanding of the patient's feelings, thoughts, moods, and behaviours. While some delivery techniques, including voice-over-internet technology and video chats, might offer a sharper view of the issue, they frequently fall short in terms of intimacy and nuance compared to in-person conversations (Cherry, 2022). There could also be a delay in information deliverance (Nuna, 2021).

Secondly, the severity of depression prior to the intervention needs to be considered. There was a study done by Ketelhut et al. (2023) regarding initial severity of depression and effectiveness of therapy. It has been found that someone with a higher initial depression score showed greater improvement in depressive symptoms throughout the entire intervention. This however was not being included in this research. There is a possibility that ceiling effects took place. The pretest score (mild and minimal) possibly got affected by the ceiling effects making the decrease of score insignificant (Garin, 2014).

Yet descriptively, the intervention group reported fewer problems with everyday functioning than the group that did not get HGI. Providing HGI to the intervention group may help to lessen daily functioning challenges (four out of five participants). In contrast, the control group that did not get HGI generally did not alter or even had more trouble adjusting to daily life (four out of five participants). Previous study regarding quality of life has shown to indicate that depression is an undeniable factor that has a huge impact on everyday functioning (Rosinćzuk, 2017). In further details, negative emotions, such as basic negative affect, general negative emotion, fear, aggression, melancholy, and shame, can be reduced by HGI. On the other hand, HGI also influences elevating joyfulness, tranquillity, and self-assurance. This is so because the core purpose of HGI is to address the unfavourable feelings that participants' past experiences give rise to (Bran, 2012). Processing, altering, or rebuilding memories in the subconscious can influence people who are depressed because of the works of HGI, which focuses on the subconscious. In the end, the person can let go of the subconscious's negative emotional charge and return to experiencing more positive emotions (Torem, 2018). Understanding that people with depression have been shown to have high negative emotions accumulate within themselves, therefore, HGI has shown to have the capability to reduce negative emotion and increase positive emotions.

However, Research from Ritsner (2007) provides a model that can support the argument from IsHak (2015) and can be used to explain this circumstance. According to Ritsner (2007), the result of the interaction between distressing and protective variables leads to individuals' quality of life. Low self-esteem, ineffective coping mechanisms, the severity of psychopathology, and personality traits are all distressing factors. Physical well-being, free time, social connections, and access to medical care are all protective factors. These proved that depressive symptoms have many stressors and are influenced by many aspects that are controllable and not. Since self-evaluations of personality and self-worth take a long time in humans, it also takes a long time to measure changes in depressed symptoms.

Based on this research, HGI was proven not able to reduce depressive symptoms towards individuals suffering from depression. However, for further research, it is encouraged to identify the capability of HGI to be able to be utilised as an alternative to psychotherapy because it can increase positive emotions while decreasing negative emotions and problems coping with daily life. Subsequently, it is to be considered that future studies should be able to have deeper participants' data that include their physical wellbeing, social connections and access to healthcare.

The limited sample size of this study is one of its many shortcomings, which can undermine its internal and external validity (Faber & Fonseca, 2014). External validity of research with small samples is compromised since it is impossible to extrapolate the findings to the entire population, while internal validity is often compromised because using small samples tends to increase the likelihood that incorrect conclusions would be supported. Also, this study's design excluded follow-up sessions. External validity of research with small samples is compromised since it is impossible to extrapolate the findings to the entire population, while internal validity is often compromised because using small samples tends to increase the likelihood that incorrect conclusions would be supported.

## Conclusion

Research results indicate that HGI has no influence towards people with depression because there was no decreased level of severeness of depressive symptoms in this research. This condition could occur due to the small sample size and the absence of a follow up session for a long term. Secondly, it is to be understood that the severity of depression prior to the intervention should also be considered. Moving on, physical wellbeing, social connections, and access to healthcare also has an influence on the severity of depression. Understanding that depression doesn't just exist on its own, distressing factors have an impact on the severity of depression. It has been observed that providing HGI to the intervention group may help to lessen daily functioning challenges. Moreover, HGI

influences both the reduction of some unpleasant emotions and the enhancement of other positive ones.

#### *Recommendations*

Future research is expected to be able to conduct a qualitative follow-up study of participants using structured interviews. Also, it is intended that there will be more participant samples to reduce internal validity flaws and to enable more people to generalise the study's findings. To comprehend the findings of research around HGI on depressive disorders in a more comprehensive manner, tests on additional dependent variables connected to depressive conditions, such as subjective well-being, self-esteem, or global evaluation of functioning, can also be conducted. Adding on, variables such as severity of depression prior to intervention should also be considered. Previous research has shown promising results regarding Online HGI, hence, to ensure the effectiveness of HGI, technical errors should be eliminated before commencing the intervention.

### **Declaration**

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#### *Author Contributions*

The researcher declares that there is no conflict of interest in this research

#### *Conflict of Interest*

The authors declare no competing interests.

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