

Research Paper

Understanding the Efficacy of Self-affirmation Intervention for Subclinical Depression Among Young Adults

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Young adults, Depression, Positive psychology, Psychological intervention, Experimental design

ABSTRACT**Objective:** This study aimed to understand the effectiveness of the Self-affirmation intervention for subclinical depression in Indian adults.**Methods:** We used the experimental research design. Using purposive sampling, 80 participants with subclinical depression were chosen. The participants were randomly allocated equally to experimental (intervention) and control (non-intervention) groups. Their depression was measured at 3 intervals: pre- and post-interventions and follow-up. We hypothesized that Self-affirmation intervention will show curative and preventive capacity for subclinical depression. The data were analyzed using the 3-way analysis of variance method.**Results:** The results revealed the significant curative power of the Self-affirmation intervention for subclinical depression of the participants in the experimental group when compared to the control group. The main effects of conditions (intervention: control and experimental) and treatment intervals (pre-, post-, and follow-up) as well as their interaction effect were significant. Mean subclinical depression scores during pre- and post-interventions and follow-up intervals confirmed the curative and prophylactic power of the intervention.**Conclusion:** The study findings indicated that the affirmation-based intervention carries both curative and preventive powers for subclinical depression, as reflected in the experimental group's lower performance after the intervention and follow-up. The reverberating positive effects induced after Self-affirmation manipulation have remained active even after the intervention ended because of the underlying mechanisms of meaning, strengths, positive attributions, and beneficial social relationships that inhibit the relapse of subclinical depressive tendencies.*** Corresponding Author:**

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Highlights

- Self-affirmation is a persistent force that protects the self-worth of people during the vicissitudes of life.
- Self-affirmation intervention carries both curative and protective strengths for subclinical depression.
- Improved meaning, enhanced relationships, and positive cognition (e.g. attributions and beliefs) could be the potential mechanisms behind the effectiveness of the intervention.

Plain Language Summary

Self-affirmation includes actions that lead people to affirm their core values, most preferred relationships, and activities, which in turn protects their integrity and self-worth. Self-affirmation gets activated when people face pain, adversities, inadequacies, and failures in their life. Higher Self-affirmation is positively linked with well-being, happiness, and performance while it is negatively associated with depressive symptoms, anxiety, and burnout. Subclinical depression refers to a set of depressive symptoms that are present in normal healthy individuals. The cure, prevention, and relapse of depressive symptoms in adults have been a challenge for a long time. This study provides initial support for the usefulness of the Self-affirmation intervention for healing and preventing subclinical depression. The intervention based on Self-affirmation may have equal therapeutic values for clinical depression and other psychopathological symptoms that need to be established via future research.

1. Introduction

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elf-affirmation is a fundamental motivation that fosters an individual's self-worth and self-integrity, which in turn contributes to perceiving oneself as good, virtuous, and capable of controlling critical life outcomes and events.

Research suggests that self-affirmation empowers individuals to face the challenges posed by external and internal agents. It promotes self-worth, resilience, and positive health behaviors (Critcher & Dunning, 2015; Epton et al., 2015; Pandey, Tiwari, & Rai, 2020a). Self-affirmation reduces inappropriate defensiveness and stress (Cook et al., 2012; Schmeichel & Martens, 2005). In addition, it contributes to well-being (Armitage, 2016; Pandey et al., 2021), self-efficacy (Epton & Harris, 2008), and self-control (Schmeichel & Vohs, 2009). Considering its curative and preventive capacities, the present study aims to evaluate the effectiveness of self-affirmation intervention in reducing and preventing subclinical depressive symptoms in adults.

Self-affirmation increases the acceptance of unsolicited information about health risks and helps assimilate the existing knowledge (Sherman & Cohen, 2006). In this way, it catalyzes intentions to change the behavior after self-affirmation interventions which promote deeper processing of health information by strengthening self-integrity (Epton et al., 2015). Thus, Self-affirmation unfolds adaptive health changes systematically, encourages

careful processing (Correll et al., 2004), and reduces the impetus to jump from persuasive messages to self-centered conclusions (Sherman & Cohen, 2006). Self-affirmation interventions benefit individuals by affirming their intrinsic and extrinsic attributes of self, which lead to adaptive cognitive and behavioral outcomes (Schimel et al., 2004). Furthermore, research has shown self-affirmation to incline toward pro-sociality and connectedness by reminding people of the significance of close relationships and the fragility of self-threat (Burd & Burrow, 2017; Crocker et al., 2008).

Self-affirmation strengthens global self-esteem and adequacy by catalyzing a sense of self-worth after experiences of failure. It also enhances global self-esteem and adequacy by catalyzing positive feelings of self-worth after failure experiences. Additionally, self-affirmation reduces defensiveness in the face of personal threats which helps to maintain the right perspective of the threatening situations and bolsters strong feelings of adequacy (Critcher & Dunning, 2015; McQueen & Klein, 2006). Self-affirmation also counteracts the negative effects of lowered self-control by indulging individuals in adaptive behaviors (Schmeichel & Vohs, 2009). For instance, self-affirmed participants have reported higher self-efficacy which has led to adaptive behavior changes by promoting positive beliefs (Epton & Harris, 2008). Positive engagement in life activities and pursuits is a significant precursor of improved performance and well-being (Seligman, 2011). For example, because of their positive behavioral engagements, students who

were self-affirmed just before their threatening examinations showed enhanced academic performance as compared to their non-affirmed counterparts (Cohen & Sherman, 2014). Self-affirmation also lowers fluctuation in academic performance (Cook et al., 2012). Likewise, a meta-analysis study showed that interventions based on self-affirmation increase acceptance of health-related messages and willingness to change (Epton et al., 2015; Sweeney & Moyer, 2015).

Self-affirmation is reported to facilitate the acquisition and maintenance of well-being. Researchers have proposed two forms of well-being: hedonic and eudaimonic (Keyes, 2005; Seligman, 2011; Wong, 2011). For example, the self-affirmed participants showed significant improvements in their eudaimonic well-being after a 2-week intervention as compared to the participants of the control group (Nelson et al., 2014). Similarly, Armitage (2016) showed self-affirmation to improve the well-being of a group of middle-aged women facing social threats.

Self-affirmation also empowers people to face stress caused by individual and environmental factors. According to Sherman et al. (2009), students with self-affirmation interventions immediately before a stressful examination reported reduced stress compared to students who did not receive a similar intervention. Affirmation is an important aspect of the self that helps to reduce depressive tendencies, such as ruminative thinking and negative mood (Koole et al., 1999). Similarly, Russell et al. (2018) observed that self-affirmation is closely linked with decreased symptoms of depression, suicidal ideation, and suicidal behavior. Koole and van Knippenberg (2007) found that self-affirmation may improve self-control which may buffer against the ill consequences of thought suppression.

Although a variety of biological and psychological interventions have been devised to provide treatment and prevention to persons with depressive tendencies, their relapse problem after a gap has remained unresolved. According to the above-mentioned points, self-affirmation provides numerous advantages for individuals of all age groups irrespective of their socio-cultural affiliations. It facilitates self-worth and personal growth in the face of life adversities. Individuals encounter a variety of threats in their daily life which significantly pose challenges before their basic striving to maintain their self-integrity.

Although in earlier research the curative and preventive efficacy of self-affirmation has been established for

a variety of negative life outcomes, there is a dearth of research regarding its usefulness in dealing with depressive symptoms, which is a significant source of distress for young adults. This research builds on previous studies by suggesting that self-affirmation is effective in reducing stress, and apparent intimidation of self-worth (Sherman & Cohen, 2006; Steele, 1988), and improving resilience (Pandey, Tiwari, & Rai, 2020a). The current study lends insight from a recent study (Lannin et al., 2020) which suggested that self-affirmation writing strengthens positive moods while weakening negative moods and psychological distress compared to emotionally-expressive writing. The positive effects of self-affirmation writing were more evident at lower levels of distress as compared to higher levels.

In most of the treatment interventions for depression, it has been observed that the clients return after a reasonable gap with successful treatment of their depressive symptoms. However, these individuals soon face a relapse of these problems. Thus, a question has remained unanswered about whether the benefit of self-affirmation interventions stays intact even after the treatment of depressive symptoms. We argue that the relapse problem can be checked with the use of self-affirmation interventions as they catalyze a set of self-resources that may persist even after their cessation.

The current study aims to assess the curative and preventive powers of self-affirmation-based interventions for subclinical depressive symptoms in Indian adults. Thus, the basic goals of this study are to empirically assess and establish the efficacy of the self-affirmation intervention to lower depressive tendencies and to explore its strength for checking the relapse of such tendencies. We hypothesize that self-affirmation intervention can lower participants' subclinical depressive symptoms, which will be reflected in their performance during pre- and post-treatments. Moreover, the intervention will significantly check the reoccurrence of subclinical depressive symptoms after a reasonable gap, which will be then reflected in their scores on the depression measure in the follow-up.

2. Materials and Methods

We used an experimental research design, in which the experimental and control group participants were tested on a depression measure (Aarø et al., 2011) in pre-, post-, and follow-up conditions. Thus, the current study used a 2 (experimental, control) × 2 (male, female) × 3 (pre-, post-, and follow-up conditions) mixed factorial research design, which was repeated for the last factor.

Study sample

At first, 504 students from the undergraduate and postgraduate programs of Doctor Harisingh Gour Vishwavidyalaya (University), Sagar, Madhya Pradesh, India, were contacted. Of these, only 80 participants in the age range of 20 to 27 years were recruited using a purposive sampling method and were found suitable according to the inclusion criteria. A total of 27 participants were males (Mean±SD: 24.26±1.51 years) and 53 were females (Mean±SD: 24.53±1.80 years). The participants were assigned equally to the experimental and control groups. Most of them belonged to Sagar City, India, and its neighboring towns and came from middle-class families.

The inclusion criteria were scoring above the 75th percentile on the depression scale (Aarø et al., 2011), being unmarried, being proficient in English and Hindi, having enrolled in an academic program at the university, and having no physical and mental illnesses. The exclusion criteria were scoring below the 75th percentile on the depression scale (Aarø et al., 2011), being married, not being proficient in English and Hindi, and having health problems.

Study measures

To measure the depressive symptoms for screening the participants, we used the depressive episodes and depressive tendencies scale developed by Aarø et al. (2011). This scale includes 7 items on which the participants answer “Yes” or “No” (for instance, “have you felt tired, without energy?”). The reliability coefficient of the depression measure was obtained at 0.78 (Aarø et al., 2011).

The scale was adapted for the Indian population before being administered to the participants as it was originally developed for the Western population. To this end, we first determined the face validity of each scale item with the help of 3 experts, followed by a pilot study on 150 participants (depressives=50 persons, non-depressives=100 persons) in the age range of 20 to 30 years to estimate the internal consistency of the scale by the Cronbach α method. The reliability of this scale for the study sample was obtained at 0.96. The scale is very popular among researchers worldwide (Archer et al., 2013; Ugwu et al., 2015).

Study procedure

The study proposal was approved by the institutional Ethics Committee of Doctor Harisingh Gour Vishwavidyalaya, Sagar, Madhya Pradesh, India. News of

the study was shared on social media and those who expressed an interest in participating were further contacted through personal messages and were then informed about the study objectives. Initially, 504 participants responded to the message. Finally, 80 participants were selected based on the inclusion and exclusion criteria.

Informed written consent was obtained from each participant. After receiving the pre-test results, the participants were randomly assigned to be equally divided into experimental (intervention) and control (non-intervention) groups. The experimental group was given a self-affirmation intervention while the control group was asked to write about mundane and general facts of their daily lives over the past month. Post-test scores were obtained on the last day of the intervention while follow-up scores were recorded 10 days after the end of the post-test intervention.

Manipulation of the self-affirmation intervention

Self-affirmation denotes an increased awareness of the individual's self-resources. Before the manipulation of the intervention, the questions related to the exact procedure were resolved. Considering the recommendations of clinical intervention (Lyubomirsky & Layous, 2013) and self-affirmation research (Cohen et al., 2009; MCQueen & Klein, 2006; Sin & Lyubomirsky, 2009), which assume that duration is important to the success of any intervention, a 3-week duration of the intervention was set and the follow-up was conducted 10 days after the completion of the intervention.

In previous self-affirmation studies (MCQueen & Klein, 2006), the nature of the threat being manipulated was mostly hypothetical, while the presence of sub-clinical depressive symptoms in the participants of the current study indicated a real threat. After recording a pre-intervention measure, the experimental group was given the purpose-in-life task, which is popularly used to induce self-affirmation. It involved daily self-affirmative writing in a diary for 3 weeks. Meanwhile, the control group was instructed to carry out factual writing (no self-affirmation) of mundane facts in a diary for 3 weeks. The basic features of self-affirmation and non-affirmation tasks are provided in Table 1.

Data analysis strategy

Mean±SD was calculated from the participants' depression scores in the experimental and control groups at pre-, post-, and follow-up intervals. We used 3-way analysis of variance (ANOVA) to calculate the main and

interaction effects of intervention conditions (affirmed, non-affirmed), treatment intervals (pre-intervention, post-intervention, follow-up), and gender (male, female) on depressive symptoms. As the data did not follow the normal distribution, the above statistics were computed using bootstrapping on 1000 samples. This procedure was proposed for data analysis that does not follow a normal distribution (Bishara & Hittner, 2017). Data analysis was performed via the SPSS software, version 26, procured by the university.

3. Results

Descriptive statistics were computed for all the measures and are presented in Table 2. Table 3 displays that the main effect of the intervention conditions (experimental, control) was statistically significant ($F_{1,76} = 350.48, P < 0.001$) suggesting that the intervention exerted significant curative and preventive effects on the participants' depressive symptoms. Likewise, the treatment intervals evinced a statistically significant effect ($F_{2,152} = 201.47, P < 0.001$) which exhibited efficacious curative and preventive effects of the intervention on the participants' depressive symptoms. In addition, a significant interaction effect of treatment conditions and treatment intervals was observed ($F_{2,152} = 95.28, P < 0.001$).

Partial Eta squared (η_p^2) values were calculated to estimate the effect size of treatment conditions and treatment intervals. According to Cohen (1988, 1992), values of 0.10, 0.30, and 0.50 for η_p^2 denote the effect size of low, medium, and large levels, respectively. The experimental condition (mean=3.03, standard error [SE]=0.095, 95% confidence interval [CI]: 2.84, 3.20), and control condition (mean=5.43, SE=0.086, 95% CI: 5.26, 5.60) exerted a large effect size ($\eta_p^2=0.82$). Similarly, the main effect of treatment intervals, that is the pre-intervention (mean=5.49, SE=0.061, 95% CI: 5.37, 5.61), post-intervention (mean=3.54, SE=0.098, 95% CI: 3.35, 3.74), and follow-up (mean=3.66, SE=0.104, 95% CI: 3.45, 3.86), showed a large effect ($\eta_p^2=0.73$).

The effect size of the interaction effects of the treatment conditions and treatment intervals, pre-intervention of

the experimental condition (mean=5.16, SE=0.090, 95% CI: 4.98, 5.34), post-intervention of the experimental condition (mean=1.85, SE=0.145, 95% CI: 1.56, 2.14), follow-up of the experimental condition (mean=2.08, SE=0.154, 95% CI: 1.77, 2.39), pre-intervention of the control condition (mean=5.82, SE=0.082, 95% CI: 5.66, 5.99), post-intervention of the control condition (mean=5.23, SE=0.132, 95% CI: 4.97, 5.49), and follow-up of the control condition (mean=5.23, SE=0.141, 95% CI: 4.95, 5.51) was again large ($\eta_p^2=0.56$).

Figure 1 and Figure 2 demonstrate the simple effects of treatment conditions and treatment intervals for depression measures. They represent a pictorial form of post hoc comparisons that indicate the simple effects of each level of treatment conditions, treatment intervals, and their interaction effects on the measure of depression.

4. Discussion

The findings of this study indicated that self-affirmation-based intervention manipulated in the current study exerted curative and preventive effects on the participants' subclinical depressive symptoms. The main effects of treatment conditions and treatment intervals as well as their interaction effects were statistically significant. The significant difference in participants' depressive symptoms in pre- and post-intervention intervals of the experimental condition was indicative of the curative effect of the intervention. The significant difference in participants' depressive symptoms at post-intervention and follow-up of the experimental condition evinced its preventive ability. The success of the intervention manipulation could be observed in the significant main effect of the treatment conditions. These findings support the study's hypotheses.

It has been suggested that a variety of mechanisms operate behind the healing effects of self-affirmation. Research suggests that three fundamental mechanisms work behind the positive effects of self-affirmation interventions, namely values, attributes, and effective social relationships (Harris et al., 2019). These sources may add fluidity to the processes of self-affirmation. Find-

Table 1. Self-affirmed and non-affirmed tasks

Categories	Operational Definition	Examples
Self-affirmed	A positive reflection on the cherished domain of life.	I am good at mathematics; I will work hard on this subject and will certainly have good cumulative grades.
Non-affirmed	Factual and mundane writings	I had breakfast and did my studies.

Table 2. Means and standard deviations (SD) of the scores on depression measure

Treatment Intervals	Treatment Conditions	Gender	Mean±SD	No.	
Pre-intervention	Experimental	Male	4.91±0.54	11	
		Female	5.41±0.57	29	
		Total	5.28±0.60	40	
	Control	Male	5.94±0.25	16	
		Female	5.71±0.55	24	
		Total	5.80±0.46	40	
	Total	Male	5.52±0.64	27	
		Female	5.55±0.57	53	
		Total	5.54±0.59	80	
	Post-intervention	Experimental	Male	1.91±0.83	11
			Female	1.79±0.94	29
			Total	1.83±0.90	40
Control		Male	5.25±0.68	16	
		Female	5.21±0.72	24	
		Total	5.23±0.70	40	
Total		Male	3.89±1.83	27	
		Female	3.34±1.91	53	
		Total	3.53±1.89	80	
Follow-up		Experimental	Male	2.09±1.30	11
			Female	2.07±0.88	29
			Total	2.08±0.99	40
	Control	Male	5.25±0.68	16	
		Female	5.21±0.72	24	
		Total	5.23±0.70	40	
	Total	Male	3.96±1.85	27	
		Female	3.49±1.77	53	
		Total	3.65±1.80	80	

ings from previous research show that self-affirmation interventions are effective in dealing with the negative consequences of pain, fatigue, light-headedness, loss of appetite, anxiety, poor well-being, suicidal thoughts, and suicidal behaviors (Russell et al., 2018), rumination

and negative thinking (Koole et al., 1999), and thought suppression (Koole & van Knippenberg, 2007). A recent study also supports the current study findings and reported that self-affirmation writing enhances positive mood and decreases negative mood and psychological distress

Table 3. Three-way analyses of variance in treatment conditions, treatment intervals, and gender

Source of Variance		SS	df	MS	F	P	η_p^2
Between SS	Conditions	300.16	1	300.16	350.48	0.001	0.82
	Gender	0.01	1	0.01	0.01	0.944	0.00
	Conditions x gender	0.67	1	0.67	0.78	0.379	0.01
	Error (between)	65.09	76	0.86			
Within SS	Treatment intervals	167.29	2	83.64	201.47	0.001	0.73
	Conditions x treatment intervals	79.12	2	39.56	95.28	0.001	0.56
	Gender x treatment intervals	0.45	2	0.23	0.55	0.581	0.01
	Conditions x gender x treatment intervals	1.70	2	0.85	2.05	0.132	0.03
	Error (within)	63.11	152	0.42			
Total		677.60	239				

over time (Lannin et al., 2020). Thus, the findings lend some support to these studies which used psychological constructs sufficiently close to the depressive tendencies measure used in the current study.

Self-affirmations can help treat depression since it reflects that an individual is valued, loved, healthy, positive, productive, important, unique, meaningful, strong, able to know oneself, physically potent, and resilient. Simon et al. (2016) surveyed the prominently employed self-care strategies and suggested that in the face of depressive symptoms and suicidal thoughts, the participants show their involvement in distracting activities or positive social and interpersonal activities, physical exercise, enhanced use of positive affirmations, and use of individual spiritual practices.

Depression is essentially characterized by a unique set of cognitive, emotional, and physiological symptoms that pose significant challenges to a person's meaning of life, self-worth, and self-integrity. More specifically, feelings of excessive worthlessness, undue guilt, indecisiveness, diminished thinking ability, poor concentration, and recurring negative thoughts are some of the greatest challenges that arise during the course of depression and pose significant adjustment challenges for those affected. Core strengths of self-affirmation may have been activated in the participants of the current study after the intervention, as it may have helped them to affirm their most preferred values and life meanings and to reactivate their self-worth, relational resources, and self-integrity. The present study helps to integrate the existing litera-

ture on self-affirmation and depression with the framework of interventions suggested by previous researchers in the form of a potential intervention for individuals experiencing depression. Thus, the findings of the current study evinced the curative strengths of self-affirmation in reducing depressive tendencies.

Self-affirmation increases awareness of an individual's behavioral, cognitive, and emotional resources. The study findings indicated that a self-affirmation-based intervention could help people with subclinical depressive symptoms. In most of the treatment methods for depression, it has been observed that the clients return after a reasonable gap following the successful treatment with the reoccurrence of depressive symptoms. The current research is one of the few studies showing that the problem of relapse of depressive symptoms could be controlled through the use of self-affirmation-based interventions that are capable of increasing self-worth and self-resources. The findings show that the effects of the self-affirmation intervention persist even after the cessation of treatment because of the sufficient availability of personal resources for those affected.

The preventive ability of the self-affirmation-based intervention may also be explained in terms of the positive consequences that it may have produced. For example, previous research has shown that self-affirmation may help individuals improve happiness and well-being, practice kindness, express gratitude, and improve optimism (Boehm et al., 2011; Layous et al., 2013; Lyubomirsky et al., 2005; Sin & Lyubomirsky, 2009). These positive

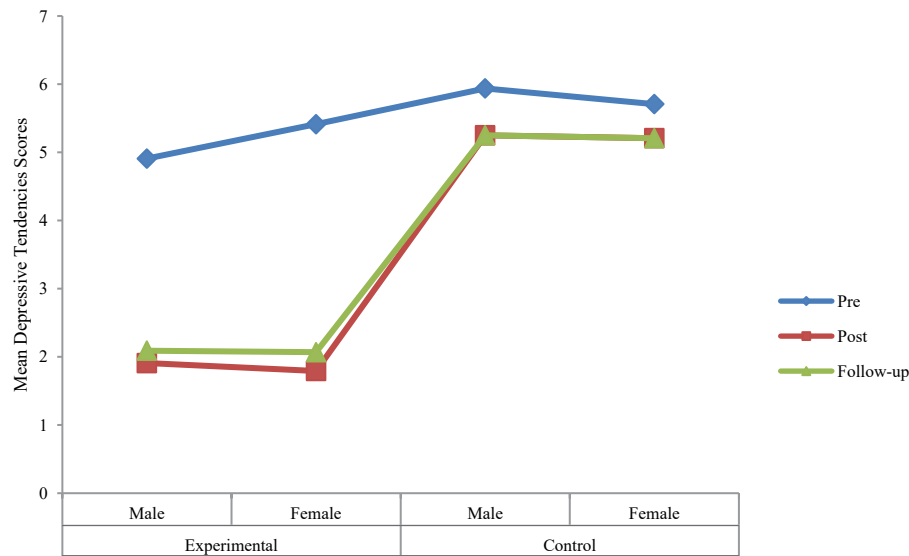


Figure 1. Changes in depressive tendencies as a function of treatment conditions and gender for pre-test, post-test, and follow-up conditions

psychological mechanisms may have been working as preventive strengths of self-affirmation which may have checked the relapse of the depressive symptoms in the participants. The notable contribution of the present study is to demonstrate the prophylactic strength of the self-affirmation intervention.

Implications for practice and policy

Combining the two lines of research, depressive tendencies and self-affirmation interventions, demonstrated that self-affirmation has healing effects and its benefits remain active and present beyond a week. The findings also show that a seemingly small intervention can have large effects. The self-affirmation-based

intervention implied in the current research is simple, easy to use, and economical. It can also be modified according to individual, interpersonal, small group, and collective needs. Considering the unique prophylactic strength of the self-affirmation intervention, this method may be a great contribution to the population suffering from depressive symptoms.

There are many innovative avenues for future research to add to the field of self-affirmation. Research may be designed by employing different samples comprising diverse age and cultural groups. More qualitative research is required to understand cultural variations. Cross-sectional studies are also needed. The prophylactic strength of the self-affirmation in-

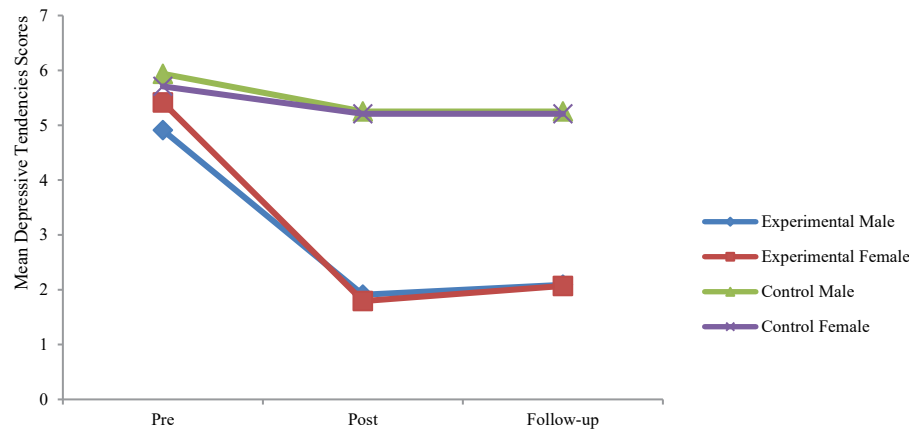


Figure 2. Changes in depressive tendencies as a function of treatment intervals and gender for the experimental and control conditions

intervention may also need further assessment for its effectiveness to other psychopathological symptoms. Cultural peculiarities underlying self-affirmation have been reported. For example, some significant differences in the self-affirmation of people adhering to individualistic and collectivistic societies should also be considered while planning to design self-affirmation intervention (Pandey, Tiwari, & Rai, 2020b; Tiwari et al., 2022). Moreover, individuals living in nuclear and joint families have been suggested to practice dissimilar self-affirmation strategies (Tiwari et al., 2020).

5. Conclusion

The self-affirmation intervention helps individuals deal effectively with threats and restores positive life outcomes. The study assessed adults' subclinical depressive symptoms under experimental (affirmation) and control (non-affirmation) conditions at three intervals (pre-, post-, and follow-up). The experimental group showed a significant reduction in depressive symptoms after the intervention than the control group. The intervention also evinced its prophylactic effects seen in the significant difference of the mean depressive tendencies scores of the experimental group taken at three points of time (pre-, post-, and follow-up). The findings demonstrated the prophylactic power of the self-affirmation-based intervention, which catalyzes positive self-resources effective in dealing with the threats to self-integrity. Due to its simple, easy, and economical features, it may have practical and policy implications at individual, group, and community levels for people facing psychopathological challenges.

In conclusion, self-affirmation reflects a fundamental force to maintain self-worth and self-integrity. It offers people a paradigm to perceive them as superior, worthy, and capable of controlling their meaningful life events. It carries close links with health and well-being. Self-affirmation intervention helps individuals in dealing with threats caused by depressive tendencies. Meanwhile, self-affirmation may have significant curative and prophylactic values for depressive tendencies. Improved meaning, positive cognitions, and social relationships are the mechanisms behind its curative and prophylactic values.

Study limitations

Current research is not without limitations. For example, a small sample of subclinical depressives, the recruitment of participants from a limited geographic area, the lack of a comparative intervention, and the exclusive

use of a sample of adults are some of the major limitations of the study. Because the findings are based on a subclinical sample from a specific culture, generalizations should be made with caution. Research reports that there are cultural differences in the expressions of depressive symptoms. For example, somatic symptoms of depression are reported more frequently by the Chinese than by Nigerians (Kleinman, 1977). Future research may examine values effective in a particular cultural context and likely to invite self-affirmation (Kleinman, 1977; Zhu, 2018). The self-affirmation-based intervention can be easily implemented at the group level. Health policymakers, practitioners, and social workers may find this intervention to be of great help in reducing symptoms of depression and other illnesses.

Ethical Considerations

Compliance with ethical guidelines

This study was approved by the Ethics Committee of Doctor Harisingh Gour Vishwavidyalaya, Sagar, 470003, Madhya Pradesh, India with the following Ethics Code: DHSGV/IEC/2021/12.

Funding

The authors received no funding for this study.

Authors' contributions

Conceptualization and Supervision: Ruchi Pandey and Gyanesh Kumar Tiwari; Methodology: All authors; Investigation, Writing - original draft, and Writing - review & editing: All authors; Data collection: Ruchi Pandey; Data analysis: Gyanesh Kumar Tiwari and Pramod Kumar Rai; Funding acquisition and Resources: All authors.

Conflict of interest

The authors declare no conflict of interest.

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