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Strengthening Self-Integrity through Self-Affirmation: An Experimental Study among Double Jeopardy Students

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ABSTRACT

This study explores the effect of self-affirmation interventions on the self-integrity of middle school migrant girls facing double jeopardy. Using an experimental design, 64 eighth-grade girls from government schools in Jalandhar were selected through purposive sampling. Participants were grouped into experimental and control groups based on pretest scores using a Hindi self-integrity scale. The experimental group received three self-affirmation interventions at 58- and 55-day intervals. Posttests followed each session, with a final test 30 days after the last intervention. Initial results showed no immediate improvement, but later posttests revealed significant, lasting gains in the experimental group. The findings suggest that self-affirmation enhances self-integrity over time, offering a low-cost method to support disadvantaged students and help them resist stereotype threats in education.

Keywords: *double Jeopardy, experimental study, intervention, migrants, self-affirmation, self-Integrity*

INTRODUCTION

Claude Steele first proposed the Self-affirmation theory in (1988). Self-affirmation theory is a psychological theory that focuses on how individuals adapt to information or experiences that are threatening to their self-concept. It asserts that the overall goal of the self-system is to protect an image of its self-integrity, of its moral and adaptive adequacy. When this image of self-integrity is threatened, people respond in such a way as to restore self-worth. It remains a well-studied theory in social psychological research. Steele purported that the self is made up of different domains: roles, values, and belief systems. Roles include responsibilities a person has, such as being a parent, friend, student, or professional. Values are aspirations people live in accordance with, including things such as living healthfully and treating others with respect. Belief systems include the ideologies to which a person ascribes, such as religious or political beliefs. Self-integrity can take many forms. Instead of having one self-concept (e.g., I am a good student), self-affirmation theory posits that individuals flexibly define who they are using various roles (e.g., I am a good parent, child, and worker). Having a flexible sense of self allows individuals to offset weaknesses in one domain by highlighting the strengths in another domain. That is, if someone perceives a threat to one domain, he or she can accommodate this threat by upholding a value in another domain. Self-affirmations can come from many sources. Having a flexible self-concept allows people to adapt in the face of threat. Second, self-affirmation theory argues that maintaining self-identity is not about being exceptional, perfect, or excellent (Cohen & Sherman, 2014). Rather, we just need to be competent and adequate in different areas that we personally value to be moral, flexible, and good (Steele, 1988). Self-affirmation theory has proven to be useful for understanding and addressing inequalities in educational outcomes, particularly academic performance, immigrants and gender differences (Cohen & Sherman, 2014; Sherman & Cohen, 2006; Steele, 1988). The key tenet of the theory posits that people have a need to see themselves as a good and adequate person, as having “self-integrity” (Steele, 1988, p 262).

Children go through dramatic physical and psychological changes and cope with multiple stressors, including the challenge of forming their identity. Students want to think positively of themselves. However, the daily stressors of school tests, grades, and peer relations can threaten their sense of personal adequacy. School can be especially threatening for members of historically marginalized groups such as African Americans and Latino Americans (Steele

2010). They may worry that they could be seen through the lens of a negative stereotype rather than accorded respect and judged on their merits. Race, gender, immigration status, minorities and other group memberships can thus give rise to a repeated threat for entire groups in academic settings. The concept of self-control, integral to desirable life outcomes, including academic success, is explored, with interventions such as self-affirmation showing promise in improving individuals' self-control (Duckworth & Seligman, 2005; Tangney et al., 2004). Theoretical frameworks, such as self-affirmation theory, highlight the motivation to uphold self-integrity as a key element in managing stress and maintaining a positive self-image (Steele, 1988; Cohen & Sherman, 2014). The experience of self-threat, akin to a psychological alarm, triggers stress responses that, when chronic, can impair academic performance and well-being (Sapolsky, 2004). Additionally, self-integrity, characterized by adherence to strong morals and values, plays a crucial role in navigating academic challenges, and self-affirmation interventions contribute to maintaining self-integrity and reducing academic stress (Wood et al., 2009). The integration of self-affirmation into academic settings presents a promising avenue for enhancing student well-being and academic performance, especially for those facing threats to their self-integrity (Khan & Beri, 2024).

Double jeopardy means a group of people who belong to two disadvantage groups. In India, socially disadvantaged groups include females, gender, race, caste and minorities. Of these, females, who constitute half of the human population, are never treated on equal ground in all spheres of human life. They are suppressed, oppressed and marginalized in the matter of sharing the available opportunity for their lives, although every woman strives for the development of her family. She is religiously, historically and socially and politically marginalized. Adolescence is the phase of life in which every student is prepared physically, mentally and emotionally to face the challenges of life that lie ahead. Every decision of their life revolves around their gender and migration. According to the double-jeopardy approach (e.g., Almquist, 1975; see Hancock, 2006; Purdie-Vaughns & Eibach, 2008 for a review), female immigrants should be subject to a double disadvantage because of their membership in two negatively stereotyped social groups. Over the past two decades, a new class of social psychological intervention, known as self-affirmation (Cohen, Garcia, Apfel, & Master, 2006), has demonstrated promise as a cost-effective strategy that works wonders for marginalized groups that are socially and economically weaker (Khan & Beri, 2024).

LITERATURE REVIEW

Experimental investigations of self-affirmation theory suggest that self-affirmation can help individuals cope with threat or stress and that it might be beneficial for improving stress, performance, and health and reducing

defensiveness. Self-affirmation theory looks at how people maintain self-integrity when this perception of themselves is threatened. In other words, the theory looks to understand how people adjust to stay feeling "good" or "virtuous" when some message or event challenges that belief. However, social psychological research demonstrates the potential for brief interventions to have lasting benefits (Cohen & Garcia 2008; Garcia & Cohen 2012; Walton & Cohen 2011; Wilson 2011; Yeager & Walton 2011). These interventions help people adapt to long-term challenges. For example, a series of 10-minute self-affirming exercises, which prompt people to write about core personal values, improved migrant student self-integrity in public schools, with effects that persisted for years (Cohen et al., 2006; Sherman & Cohen 2006). The self-integrity of students in the control group remained stable over time. Other research has indicated that self-integrity can be influenced by various factors, such as environmental stimuli, maturation, and personal experiences (Baumeister et al., 2003; Sherman & Cohen, 2006). Additionally, studies have shown that in the absence of self-affirmation interventions, students from disadvantaged or marginalized backgrounds may experience limited changes in self-esteem or self-integrity (Steel, 1988; Spencer et al., 1997). According to Armitage et al. (2011) and Creswell et al. (2013), self-affirmation intervention maintains its long-term effect. Sherman & Cohen (2006) and Cohen & Sherman (2014) suggested that self-affirmation interventions help reduce defensive responses and improve self-control among migrant female students.

In short, after performing self-affirmation intervention, migrant girl students may feel less stressed and improve their self-integrity, which helps them to perform better on the next classroom test, and performing better, the student may feel more affirmed in a recursive process that lifts the student's trajectory and eventually becomes a continual source of self-affirmation. Affirmation interventions can trigger a series of reciprocally reinforcing interactions between the self-system and the social system that foster students' adaptive potential over time (Khan & Beri, 2024).

RESEARCH METHOD

Using an experimental study design, we tested the effect of self-affirmation on self-integrity among migrant females studying in government schools in District Jalandhar (Punjab). The researcher conducts a pretest by administering the self-integrity scale developed by Sherman et al. (2005) to divide the 64 migrant girls into 2 groups, i.e., an experimental group and a control group. The experimental group comprised 33 girls, while the control group had 31 girls. Subsequently, a self-affirmation intervention developed by Cohen et al. (2006) adopted in the Hindi language was administered to the experimental group, while no intervention was provided to the control group. The self-affirmation

intervention included 14 values, and students were asked to choose the 2 most important values of their life and write an essay about why these values are important to them and what they will do in the future for these values. Following the first intervention, a posttest was conducted to evaluate the effect of the intervention on the self-integrity of the migrant girls. A second intervention was conducted after 58 days, followed by posttest 2nd, and after 55 days, a third intervention was conducted, followed by posttest 3rd. A final posttest was administered after 30 days without the 4th intervention to assess the long-term impact of the intervention (Khan & Beri, 2024).

Participants

The researcher conducted a field survey and selected 10 government schools. The population of the study includes a total of 119 migrant students enrolled in the 8th grade. Out of 10 schools, the researcher chose three schools with less than 50% of migrant students studying in 8th grade. In total, 64 migrant girls were selected from these 03 government schools to participate in the experimental study.

RESULTS

The researcher aims to evaluate the effect of the self-affirmation intervention on both the experimental and control groups during phase I, phase II, phase III and phase IV. To evaluate the effect of the self-affirmation program on Self-Integrity among Double Jeopardy middle school students, repeated-measures ANOVA was employed. This statistical method allowed for the comparison of self-integrity scores across different testing phases, including pretest and subsequent posttests, to determine if there were significant changes attributable to the intervention. The analysis involved the computation of mean scores, standard deviations, and p values to assess the statistical significance of observed differences in self-integrity over time, thus providing a robust understanding of the intervention's impact. The findings of the objective can be understood under the following headings:

Effect of Intervention Programs on Self-Integrity in the Experimental Group

The self-affirmation intervention program had a notable positive impact on the self-integrity scores of the experimental group, consisting of middle school students identified as having double jeopardy. The data collected during various testing phases indicated a clear upward trend in self-integrity scores postintervention, as shown in Table 1.

Table 1: Descriptive Statistical Analysis of Self-Integrity Scores Across Testing Phases in the Experimental Group

Self-Integrity	Mean	SD	N
Pretest	18.73	5.352	33
Posttest 1	18.73	5.346	33
Posttest 2	20.42	5.309	33
Post-Test 3	22.70	5.133	33
Post-Test 4	22.97	5.151	33

The self-integrity scores of the Experimental group were measured at five different testing phases: Pretest and four posttests (Posttest 1, Posttest 2, Posttest 3, and Posttest 4), which were conducted after the intervention. The means, standard deviations, and sample size (N = 33) for each phase are given below.

At the pretest, the mean score was 18.73, with a standard deviation of 5.352, and the posttest 1 scores were identical to the pretest, with a mean score of 18.73 and a standard deviation of 5.346, suggesting that there was no immediate change in self-integrity following the first intervention. However, a noticeable increase in self-integrity was observed at Posttest 2, with the mean score rising to 20.42 and a standard deviation of 5.309. This increase indicates a positive effect of the second self-affirmation intervention. The scores continued to rise at posttest 3, where the mean score reached 22.70, with a slightly lower standard deviation of 5.133. This suggests that the third intervention had a further positive impact on self-integrity, with the participants showing more consistent improvements. Finally, at posttest 4, the mean score increased slightly to 22.97, with a standard deviation of 5.151, indicating that the improvements in self-integrity scores were sustained even after the third intervention. The increase in the self-integrity mean score suggests that the repeated self-affirmation interventions had a positive effect on the migrant girl's self-integrity over time. Furthermore, posttest-4 was conducted without intervention, which shows the positive long-term effect of the self-affirmation intervention. These findings are supported by Pennebaker (2012), who states that self-affirmation intervention writing exercises can improve self-integrity. Additionally, when individuals affirm a core value or belief, they are more likely to maintain their self-integrity and handle threats with resilience (Harber and Cohen, 2005).

ANOVA of Self-Integrity Score Variations across Testing Phases: Within-Subject Comparisons in the Experimental Group

Table 2 presents the statistical analysis of self-integrity score changes among the experimental group throughout various testing phases. This elucidates the differences observed between the pretest and subsequent posttests. Significant variations in self-integrity scores were noted, particularly between the pretest and

later posttest phases, indicating the effectiveness of the self-affirmation intervention. The F values and corresponding p values demonstrate the intervention's substantial impact in enhancing self-integrity, affirming its critical role in supporting marginalized students' psychological well-being.

Table 2: Descriptive Statistics of Self-Integrity Scores Across Testing Phases in the Experimental Group

Source	Test	TSS	df	MS	F	Sig.	PES
Test	Prt vs. Pot-1	.000	1	.000	.000	1.000	.000
	Pot-1vs. Pot-2	95.030	1	95.030	179.200	.000	.848
	Pot-2 vs. Pot-3	170.455	1	170.455	434.783	.000	.931
	Pot-3 vs. Pot-4	2.455	1	2.455	9.191	.005	.223
Error (Test)	Prt vs. Pot-1	6.000	32	.187			
	Pot-1 vs. Pot-2	16.970	32	.530			
	Pot-2 vs. Pot-3	12.545	32	.392			
	Pot-3 vs. Pot-4	8.545	32	.267			

Note: TSS= Type III Sum of Squares, MS= Mean Square, PES= Partial Eta Squared, Prt=Pretest, Pot= Posttest

The results of the analysis indicate that the levels of self-affirmation intervention have a statistically significant effect on the self-integrity of female migrant students. The p values for all comparisons between levels (Posttest 1 vs. Posttest 2, Posttest 2 vs. Posttest 3, and Posttest 3 vs. Posttest 4) are less than 0.05 except pretest vs. posttest 1, suggesting that the differences observed between these levels are not due to chance. This means that the self-affirmation intervention has a meaningful impact on the self-integrity of female migrant students. The comparison between the pretest and posttest 1 revealed no significant difference ($p = 1.000$) with a partial eta squared of .000, suggesting that the first intervention did not affect the self-integrity of the migrant girls. However, the comparison between Posttest 1 and Posttest 2 showed a substantial increase in self-integrity ($p = .000$, partial eta squared = .848), indicating a highly significant change. Similarly, a significant difference was found between Posttest 2 and Posttest 3 ($p = .000$, partial eta squared = .931), showing that the intervention continued to effectively increase the self-integrity of migrant girls in the experimental group. However, the effect size for the comparison between Posttest 3 and Posttest 4 is noticeably smaller, with a partial eta squared value of 0.223. While the difference between these levels is still statistically significant ($p = 0.005$), the smaller effect size indicates that the intervention's impact becomes weaker at higher levels. Overall, the findings suggest that self-affirmation has a strong and significant

impact on the self-integrity of migrant girls in the experimental group.

Assessment of Self-Integrity Improvement in the Experimental Group: Overview of Pairwise Comparisons across Testing Phases

The evaluation of the experimental group's development in self-integrity offers important information about how well the intervention worked. An overview of pairwise comparisons throughout various testing periods is provided in Table 1.3, emphasizing notable variations in self-integrity levels across time**.**

Table 3: Pairwise Comparison of Self-Integrity Scores for the Experimental Group Across Testing Phases

(I) Test	(J) Test	Mean difference (I-J)	SD	Sig.	95% confidence interval for difference	
					Lower Bound	Upper Bound
Prt	Pot-1	.000	.075	1.000	.227	.227
	Pot-2	1.697	.102	.000	2.004	1.390
	Pot-3	3.970	.141	.000	4.858	3.545
	Pot-4	4.242	.204	.000	4.858	3.627
Pot-1	Prt	.000	.075	1.000	.227	.227
	Pot-2	1.697	.127	.000	2.079	1.315
	Pot-3	3.970	.141	.000	4.858	3.545
	Pot-4	4.242	.190	.000	4.815	3.670
Pot-2	Prt	1.697	.102	.000	1.390	2.004
	Pot-1	1.697	.127	.000	1.315	2.079
	Pot-3	2.273	.109	.000	2.601	1.944
	Pot-4	2.545	.151	.000	3.002	2.089
Pot-3	Prt	3.970	.141	.000	3.545	4.395
	Pot-1	3.970	.141	.000	3.545	4.395
	Pot-2	2.273	.109	.000	1.944	2.601
	Pot-4	.273	.090	.048	.544	.002
Pot-4	Prt	4.242	.204	.000	3.627	4.858
	Pot-1	4.242	.190	.000	3.670	4.815
	Pot-2	2.545	.151	.000	2.089	3.002
	Pot-3	.273	.090	.048	.002	.544

Note: Prt=Pretest, Pot= Posttest

Table 3 shows that the pairwise comparisons between different test phases reveal a significant impact of the self-affirmation intervention on the self-integrity of female migrant students. Initially, no significant difference was found between pretest and posttest 1, as the mean difference was 0.000, with a p value of 1.000,

indicating that the self-integrity scores did not change between these two points. However, when comparing pretest with posttest 2, there was a marginally significant increase in self-integrity scores (mean difference = 1.697, p = 0.075), suggesting some effect of the intervention, although it did not reach conventional statistical significance at the 0.05 level. The most pronounced effects were observed in the comparisons between the pretest and the later posttests. The mean differences between pretest and both posttest 3 and posttest 4 were substantial, at 3.970 and 4.242, respectively, both of which were statistically significant (p = 0.000). The confidence intervals for these comparisons did not include 0, further confirming that the self-affirmation intervention significantly increased self-integrity scores over time. These findings suggest that the self-affirmation intervention led to a notable change in self-integrity, particularly in the first few cycles. In contrast, the comparison between Posttest1 and Posttest 2 did not yield a statistically significant result (mean difference = 1.697, p = 0.102), indicating that the self-affirmation intervention had little effect between these two tests. However, comparisons between Posttest1 and both Posttest3 and Test 4 showed significant increases in self-integrity scores (mean differences = 3.970 and 4.242 for both, p = 0.000). These differences were statistically significant, with confidence intervals that did not include 0, highlighting the effectiveness of the intervention in boosting self-integrity after its application.

Further comparisons between Posttest-2 and the later tests (Test-3 and Test-4) also revealed significant increases in self-integrity scores, with mean differences of 2.273 (Test-2 vs. Test-3) and 2.545 (Test 3 vs. Test 4), both of which were statistically significant (p = 0.000). These results suggest that the effects of the intervention continued to be significant even after several cycles, although the magnitude of the change appeared to diminish over time. The smallest effect was observed between Posttest3 and Posttest4 (mean difference = 0.273), which was still statistically significant (p = 0.048), but the change in self-integrity was relatively small compared to earlier comparisons. Hence, the hypothesis that there exists no significant effect of the self-affirmation intervention program on self-integrity among double- jeopardy students was rejected.

Overall, the results suggest that the self-affirmation intervention had a significant impact on the self-integrity of migrant girl students, particularly in the initial cycles. The most notable changes were observed between the pretest and later posttest (Test-3 and Test-4), indicating that the intervention led to substantial improvements in self-integrity. Self-affirmation can buffer against threats to self-integrity and maintain self-integrity by reducing the psychological threat posed by negative feedback or challenges to their self-concept (Cohen and Sherman, 2006, 2014). These findings underscore the potential of self-affirmation interventions in enhancing self-integrity, particularly in addressing the unique challenges faced by migrant girl students. The findings suggest that self-affirmation interventions can have a meaningful and lasting effect on the self-integrity of migrant girl students,

although the magnitude of the effect may vary over time. According to Cohen & Garcia (2017) and Choi & Lee (2016), self-affirmation helps to mitigate the feelings of marginalized individuals, such as migrant girls, and strengthen their self-integrity. The significant differences between the earlier and later tests underscore the effectiveness of the intervention in enhancing self-integrity, which is crucial for addressing the challenges faced by double jeopardy students.

Effect of Intervention Programs on Self-Integrity in the Control Group

In examining the self-integrity of the control group, Table 4 presents the mean scores and standard deviations across various testing phases, including the pretest and four subsequent posttests. The data reflect the scores of 31 participants, allowing for an analysis of any changes in self-integrity over time. The control group did not receive any self-affirmation interventions, thereby providing a baseline for understanding how self-integrity may remain stable in the absence of such interventions.

Table 4: Descriptive Statistical Analysis of Self-Integrity Scores across Testing Phases in the Control Group

Control Group	Mean	SD	N
Pretest	20.55	6.647	31
Posttest 1	20.61	6.657	31
Posttest 2	20.97	6.834	31
Post-Test 3	20.77	6.581	31
Post-Test 4	20.97	6.406	31

Note: SD= Standard Deviation, N=Number of Students

The self-integrity scores of the Control group were measured at five different testing phases: Pretest and four posttests (Posttest 1, Posttest 2, Posttest 3, and Posttest 4), which were conducted without intervention. The means, standard deviations, and sample size (N = 31) for each phase are given in Table 4.

The participants in the control group did not receive the self-affirmation intervention compared to the experimental group. The data from the control group show that no changes were observed between the mean scores of all 5 tests, i.e., pretest, posttest 1, posttest 2, posttest 3, and posttest 4. The mean pretest score was 20.55, and the mean posttest score was 20.61, with SDs of 6.647 and 6.657 showing no significant difference. Similarly, the mean scores remained stable between posttest 1, posttest 2, posttest 3 and posttest 4 (20.61 to 20.97), suggesting that no significant changes were observed within the control group. Since no self-affirmation intervention was provided to the control group, these results emphasize the need for an intervention similar to that in the experimental group, self-affirmation brings positive changes in the self-integrity of students.

ANOVA of Self-Integrity Score Variations across Testing Phases: Within-Subject Comparisons in the Control Group

Table 5 presents the results of a repeated-measures ANOVA conducted to examine variations in self-integrity scores across different testing phases in the control group, which did not receive the self-affirmation intervention. The findings indicate that self-integrity scores remained relatively stable over time, with no statistically significant differences observed between the pretest and subsequent posttests.

Table 5*:* Descriptive Statistics of Self-Integrity Scores Across Testing Phases in the Control Group

Source	Test	TSS	Df	MS	F	Sig.	PES
Test	Prt vs. Pot-1	.129	1	.129	.659	.423	.022
	Pot-1 vs. Pot-2	3.903	1	3.903	1.206	.281	.039
	Pot-2 vs. Pot-3	1.161	1	1.161	.375	.545	.012
	Pot-3 vs. Pot-4	1.161	1	1.161	.777	.385	.025
Error (Test)	Prt vs. Pot-1	5.871	30	1.96			
	Pot-1 vs. Pot-2	97.097	30	3.237			
	Pot-2 vs. Pot-3	92.839	30	3.095			
	Pot-3 vs. Pot-4	44.839	30	1.495			

Note: TSS= Type III Sum of Squares, MS= Mean Square, PES= Partial Eta Squared, Prt=Pretest, Pot= Posttest

The within-subject results for the control group, comparing self-integrity scores at four different time points (i.e., pretest, posttest-1, posttest-2, posttest-3, and posttest-4), are presented in table 5. The F values and partial eta squared values were used to assess the magnitude of the observed differences in scores and their statistical significance.

The F value (0.659) and p value (0.423) between the pretest and posttest 1 for the control group indicate no significant difference. The partial eta squared value (0.022) suggests a very small effect size, indicating no substantial change at this stage. Similarly, the comparison between posttest 1 and posttest 2 shows no significant change, with an F value of 1.26 and a p value of 0.281. The partial eta squared value (0.039) again points to a very small effect size. The comparison between posttest-2 and posttest-3 also reveals no significant result, with an F value of 0.375 and a p value of 0.777. The partial eta squared value (0.012) is minimal at this stage as well. Last, the comparison between posttest 3 and posttest 4 shows no significant difference, with an F value of 0.777 and a p value of 0.385, both greater than 0.05. The partial eta squared value (0.025) indicates a small effect size.

Overall, comparisons across all stages of the control group (pretest, posttest-1, posttest-2, posttest-3, and posttest-4) reveal no statistically significant differences in self-integrity scores. This suggests that without the self-affirmation intervention, students' self-integrity in the control group remained stable over time. Other research has indicated that self-integrity can be influenced by various factors, such as environmental stimuli, maturation, and personal experiences (Baumeister et al., 2003; Sherman & Cohen, 2006). Additionally, studies have shown that without self-affirmation interventions, students from disadvantaged or marginalized backgrounds may experience limited changes in self-esteem or self-integrity (Steel, 1988; Spencer et al., 1997).

Assessment of Self-Integrity Improvement in the Control Group: Overview of Pairwise Comparisons across Testing Phases

The stability and evolution of self-integrity levels over time are examined in the evaluation of self-integrity in the control group.

Table 6: Pairwise Comparison of Self-Integrity Scores for the Control Group Across Testing Phases

(I) Test	(J) Test	Mean difference (I-J)	SD	Sig.	95% confidence interval for difference	
					Lower Bound	**Upper Bound**
Prt	Pot-1	.065	.079	1.000	.305	.176
	Pot-2	.419	.307	1.000	1.349	.510
	Pot-3	.226	.195	1.000	.817	.365
	Pot-4	.419	.240	.908	1.146	.308
Pot-1	Prt	.065	.079	1.000	.176	.305
	Pot-2	.355	.323	1.000	1.334	.624
	Pot-3	.161	.203	1.000	.775	.453
	Pot-4	.355	.256	1.000	1.131	.422
Pot-2	Prt	.419	.307	1.000	.510	1.349
	Pot-1	3.55	.323	1.000	.624	1.334
	Pot-3	.194	.316	1.000	.764	1.151
	Pot-4	.000	.385	1.000	1.167	1.167
Po-3	Prt	.226	.195	1.000	.365	.817
	Pot-1	.161	.203	1.000	.453	.775
	Pot-2	.194	.316	1.000	1.151	.764
	Pot-4	.194	.220	1.000	.859	.472
Pot-4	Prt	.419	.240	.908	.308	1.146
	Pot-1	.355	.256	1.000	.422	1.131
	Pot-2	.000	.385	1.000	1.167	1.167
	Pot-3	.194	.220	1.000	.472	.859

Note: Prt=Pretest, Pot= Posttest

A summary of pairwise comparisons across multiple testing phases is provided in Table 6, which also highlights any group changes or consistent patterns observed. In Table 6, the comparison between the pretest and posttest-1 revealed a mean difference of (0.065), with a p value of (1.000), which is well above the (0.05) threshold, indicating that the difference was not statistically significant. Similarly, the mean difference between the pretest and posttest 2 was 0.419, with a p value of 1.000, suggesting no significant change. A comparable result was observed between pretest, posttest 3 and posttest 4, where the mean differences were 0.226 and 0.419, respectively, and p values of 1.000 confirmed that there were no significant changes in the control group across these time points. In terms of posttest comparisons, the difference between posttest 1 and posttest 2 had a mean difference of 0.355, with a p value of 1.000, indicating no significant change. The mean differences between posttest 1 and posttest 3 (0.161) and between posttest 1 and posttest 4 (0.194) also showed no significant differences, as confirmed by p values of (1.000). Similarly, comparisons between posttest 2 and both posttest 3 (mean difference of (0.194) and posttest 4 mean difference of (0.000), with p values of (1.000), indicated no statistically significant changes. The comparison between posttest 3 and posttest 4 also revealed a mean difference of 0.194, with a p value of 1.000, further confirming the absence of significant differences.

Overall, the data from the control group indicated that there were no significant changes in self-integrity over time. In contrast, the experimental group, which participated in the self-affirmation intervention, demonstrated significant improvements in self-integrity, as evidenced by the significant differences between pretest and posttest measurements. According to Steele & Liu (1983), without self-affirmation intervention, participants show no significant change, underscoring the importance of such intervention for enhancing participants' self-integrity. Cohen et al. (2006) and Sherman & Cohen (2006) state that minority students who received self-affirmation interventions showed improvements compared to the control group who did not receive any intervention. Moreover, without such interventions, individuals may not show significant changes in their self-integrity. Thus, these findings highlight the effectiveness of the self-affirmation intervention in enhancing the self-integrity of migrant female students.

Measuring the Effect: Statistical Comparison of Self-Integrity Scores Between Experimental and Control Groups

This section outlines the outcome of the independent samples t test, which was performed to evaluate the differences in self-integrity scores between the experimental and control groups during various testing phases. By analyzing the mean differences, t values, and significance levels, the researcher aimed to determine whether the self-affirmation intervention had a measurable impact on self-integrity. The findings presented in Tables 7 and 8 offer valuable insights into

the effectiveness of the intervention.

Table 7: Descriptive Statistics of Self-Integrity Scores Across Testing Phases for Experimental and Control Groups

Time point	Experimental Group		Control Group	
	Mean	**SD**	**Mean**	**SD**
Pre-Test	18.73	5.352	20.55	6.647
Post-Test-1	18.73	5.346	20.61	6.657
Post-Test-2	20.42	5.309	20.97	6.834
Post-Test-3	22.70	5.133	20.77	6.581
Post-Test-4	22.97	5.151	20.97	6.406

Note: SD= Standard Deviation

Table 8: The t Test Analysis of Self-Integrity Score Differences Between Experimental and Control Groups

Time Point Comparison	Mean Differences	T value	Sig.
Pretest vs. Pretest	-1.82	-1.211	.122
Posttest-1 vs. Posttest-1	-1.88	-1.253	.093
Posttest-2 vs. Posttest-2	-0.55	-.357	.027
Posttest-3 vs. Posttest-3	1.93	1.308	.058
Posttest-4 vs. Posttest-4	2.00	1.382	.058

In this study, the experimental group received the intervention three times, while the control group did not receive any intervention. Both groups were assessed with pretests and 4 posttests to measure changes in self-integrity. Table 8 shows that the mean difference between the pretest of both groups was -1.82, and the t value was -1.211, with a p value of .122, which shows no significant difference between the groups. The mean difference of posttest-1 of both groups was -1.88, the t value was -1.253 and the p value was .093, which is higher than the threshold value of 0.05 and indicates no significant difference. In contrast, the mean difference between the posttest-2 of both groups was -0.55, with a t value of -.357 and a p value of .027, which is smaller than 0.05, indicating a significant difference between both groups. However, the mean difference between posttest-3 (1.93, t value 1.308) and posttest-4 (2.00, t value 1.382), with the same p value of .058, was slightly above the significance level of 0.05 but showed a significant difference.

Overall, no significant change was observed during pretest and posttest-1 in either group, while a significant difference was observed in posttest-2, posttest-3 and posttest-4 in both groups. When comparing the overall mean differences

between the experimental and control groups, the experimental group shows a much larger improvement in self-integrity. This suggests that the self-affirmation intervention had a positive effect on the migrant girls in the experimental group, enhancing their self-integrity compared to the control group, which did not experience the same intervention. Several studies, such as Cohen & Sherman (2014), Garcia & Cohen (2012), Parmanand & Leslie (2015), and Walton & Cohen (2011), support the findings of this study. These researchers have shown that self-affirmation interventions significantly enhance the self-integrity of students in experimental groups, particularly those from marginalized or at-risk backgrounds. Thus, the self-affirmation intervention has a positive effect on students facing challenges.

DISCUSSION AND CONCLUSIONS

The study's findings indicate that the self-affirmation intervention had a significant impact on the self-integrity of migrant girl students, particularly in the later stages of the intervention. The experimental group demonstrated notable improvements in self-integrity, whereas the control group showed no statistically significant changes over time. This highlights the effectiveness of self-affirmation interventions in buffering psychological threats and enhancing self-concept among students facing double jeopardy. The results align with the literature, suggesting that self-affirmation helps mitigate feelings of marginalization and fosters resilience among disadvantaged students (Cohen & Sherman, 2014; Choi & Lee, 2016; Garcia & Cohen, 2012). While initial changes were not evident in the early phases, the later tests (posttest-2, posttest-3, and posttest-4) demonstrated a consistent upward trend in self-integrity levels among the experimental group. These findings underscore the importance of structured self-affirmation programs in supporting students facing sociocultural and psychological challenges, thereby promoting long-term self-integrity and well-being.

IMPLICATIONS

Teachers should be trained to apply self-affirmation interventions in the classroom, as these methods are cost-free and have been shown to support students from disadvantaged backgrounds in preserving their sense of self-worth. The study demonstrates that such interventions are particularly beneficial for students who face disadvantages, highlighting their potential to reduce the impact of negative stereotypes and improve students' psychological wellbeing. Schools that serve disadvantaged populations could implement these practices to help students maintain and strengthen their self-integrity. Furthermore, education policies could incorporate structured self-affirmation activities into the curriculum to address negative stereotype threat and foster emotional wellbeing. Since the positive

effects of these interventions have been observed to persist over time, introducing them in the early years of schooling may offer long-lasting benefits and contribute to students' overall development and academic success.

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