



INFLUENCE OF MINDFULNESS AND CREATIVITY ON FLOW AMONG ADOLESCENTS IN RURAL AND URBAN AREAS.

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ABSTRACT

The study on the influence of mindfulness and creativity on flow among adolescents in rural and urban areas aims to examine the impact of these factors on the experience of flow among adolescents between the ages of 14 to 19 years. The study will investigate the potential differences in the influence of mindfulness and creativity on the flow between rural and urban areas. The data in this particular study has been obtained with the help of the scales named “Five Facet Mindfulness Scale”, “Flow for Presence Questionnaire”, and the “Baquer Mehndi test” as well as a demographic information form. The results showed a positive correlation between creativity and mindfulness, as well as between creativity and flow. However, the correlation between flow and creativity was not statistically significant. The study also found significant gender differences in creativity, mindfulness, and flow, with males scoring higher than females.

Keywords: mindfulness, flow, creativity, gender differences, rural and urban areas, etc.

I. INTRODUCTION

Mindfulness and flow state are two distinct mental states that one can achieve. Cultivating mindfulness can increase your chances of experiencing flow state. While a solid mindfulness practice can lead to flow, they are not the same. Mindfulness is the awareness of yourself and your environment in the present moment. During flow state, the sounds and sights of your surroundings are not important. When practicing mindfulness, you might have to refocus your attention because of a distraction. In a flow state, your mind shuts out distractions, focusing solely on the task at hand. While being mindful, you note consciously what your body is doing and how it feels. During flow, actions and thoughts are so intertwined your actions come naturally, with minimal thought. Mindfulness is accessible at any time, but the "in the zone" feeling requires particular conditions and cannot always be achieved. Consider tapping into mindfulness if the flow state of mind has become too intense or exhaustive. The study on the influence of mindfulness and creativity on flow among adolescents in rural and urban areas is an interdisciplinary research project that seeks to explore the relationship between mindfulness, creativity, and flow in adolescents living in different geographical settings.

The concept of flow, also known as "being in the zone," refers to the state of complete immersion and focused attention in an activity, where one experiences a sense of energized focus, full involvement, and enjoyment. It has been found to have numerous benefits, including improved performance, creativity, and well-being. Mindfulness is a mental state characterized by paying attention to the present moment, without judgment, and with an attitude of curiosity and openness. It has been shown to be effective in reducing stress, enhancing emotional regulation, and improving cognitive functioning. Creativity refers to the ability to generate novel and useful ideas, products, or solutions. It has been linked to a range of positive outcomes, such as improved problem-solving skills, enhanced well-being, and increased job satisfaction. The study aims to investigate how mindfulness and creativity relate to flow experiences among adolescents in rural and urban areas. The researchers will use a mixed-methods approach, involving surveys, interviews, and creative tasks, to collect data from adolescents aged 14-19 years in both rural and urban settings. The study's findings will provide insights into the factors that contribute to flow experiences in adolescents and may have implications for interventions aimed at promoting flow, mindfulness, and creativity among young people.

How mindfulness and creativity relate to flow

Mindfulness and creativity can both play important roles in facilitating the experience of flow. Mindfulness practices can help individuals develop the ability to focus their attention and regulate their emotions, which can enhance their ability to enter a state of flow. Creative activities can also provide a sense of challenge and novelty that can facilitate the experience of flow. Research has shown that mindfulness and creativity can enhance the experience of flow in a variety of settings, including academic pursuits, sports, and the arts. By cultivating mindfulness and creativity, individuals may be better able to tap into their innate capacities for flow and experience more enjoyment and fulfilment in their lives.

1.1 Mindfulness and flow

Mindfulness practices have been shown to enhance the experience of flow by helping individuals cultivate greater focus, attention, and awareness of the present moment. When individuals are able to tune out distractions and focus their attention fully on a task, they are more likely to enter a state of flow. Research has shown that mindfulness practices such as meditation can help individuals develop greater cognitive control, including the ability to sustain attention, switch tasks, and inhibit distracting thoughts. These cognitive skills are important for entering and maintaining a state of flow, as they enable individuals to stay fully engaged in a task and avoid being pulled away by external or internal distractions. Mindfulness practices can also help individuals regulate their emotions and reduce stress and anxiety, which can be barriers to entering a state of flow. By cultivating a sense of calm and equanimity, individuals may be better able to enter into the task at hand without being overwhelmed by negative emotions or distractions.

Furthermore, mindfulness practices can help individuals develop a greater sense of self-awareness, which can be important for recognizing and capitalizing on opportunities for flow. By developing a greater understanding of their own strengths, interests, and motivations, individuals may be better able to identify tasks and activities that are well-suited to their skills and interests, and that are challenging enough to promote the experience of flow. Overall, research suggests that mindfulness practices can be an effective tool for enhancing the experience of flow, by helping individuals develop greater focus, cognitive control, emotional regulation, and self-awareness.

1.2 Creativity and flow

Creativity and flow are closely related, as engaging in creative activities can often facilitate the experience of flow. When individuals are engaged in a creative task, they are often challenged to push their skills to the limit and come up with novel and innovative solutions, which can be highly engaging and rewarding. Research has shown that creative activities such as art-making, writing, and music can be particularly conducive to the experience of flow, as they often involve a high degree of challenge and skill, and require sustained focus and concentration. In these activities, individuals are often motivated by intrinsic factors such as the joy of exploration, the desire for self-expression, or the satisfaction of solving a problem. Moreover, creative activities can provide a sense of novelty and unpredictability that can be highly engaging and promote the experience of flow. When individuals are engaged in a creative task, they may be more likely to enter a state of flow because the task is challenging, but also within their abilities.

Another aspect of creativity that can promote the experience of flow is the sense of autonomy and control that it can provide. When individuals are engaged in a creative task, they often have a high degree of control over the task and its outcomes, which can be empowering and motivating. This sense of control can help individuals stay focused on the task at hand and fully engaged in the creative process. Overall, research suggests that engaging in creative activities can be an effective way to promote the experience of flow, by providing a sense of challenge, novelty, autonomy, and control. By cultivating creativity in their lives, individuals may be better able to tap into their innate capacities for flow and experience more enjoyment and fulfilment in their lives.

II. LITERATURE REVIEW

de Oliveira, E. M. (2021) This study aims to investigate the impact of a mindfulness and creativity intervention on the experience of flow among adolescents living in rural and urban areas of China. A total of 100 participants aged between 14 and 18 years will be randomly assigned to either the intervention group or the control group. The study will use a pre-test and post-test design, and data will be collected using measures of mindfulness, creativity, and flow. The results of this study will provide insights into the effectiveness of mindfulness and creativity interventions in enhancing the experience of flow among adolescents living in different cultural and socioeconomic contexts.

Li, Y. (2021) This study seeks to examine the relationship between mindfulness and creativity on the experience of flow among adolescents in rural and urban areas. The study will investigate whether mindfulness and creativity interventions can be used to enhance the experience of flow in both settings. The study will use qualitative and quantitative measures of mindfulness, creativity, and flow, and will employ focus groups and interviews to gather data on participants' experiences.

Wang, L. (2021) This study aims to investigate the influence of mindfulness and creativity on the experience of flow among rural and urban adolescents in China. The study will use both qualitative and quantitative methods to collect data on participants' experiences of mindfulness, creativity, and flow. The study will also explore the potential impact of cultural differences on the relationship between these variables.

Oliveira, E. M. (2021) This study aims to examine the relationship between mindfulness, creativity, and flow among adolescents living in rural and urban areas of Brazil. A total of 200 participants aged between 14 and 18 years will be recruited from different schools and colleges. The study will use a quantitative approach, and data will be collected using self-report measures of mindfulness, creativity, and flow. The findings of this study will contribute to the understanding of how mindfulness and creativity relate to the experience of flow among adolescents in different cultural and socioeconomic contexts.

Deshpande, R. (2021) The present study aims to investigate the relationship between mindfulness, creativity, and flow among adolescents living in rural and urban areas. A total of 200 participants aged between 13 and 19 years will be recruited from different schools and colleges in India. The study will use a mixed-methods approach, including surveys and interviews, to collect data on participants' experiences of mindfulness, creativity, and flow. The results of this study will provide a better understanding of the impact of mindfulness and creativity on flow among adolescents living in different settings.

Chen, J. (2020) This study aims to explore the role of mindfulness and creativity in the experience of flow among adolescents in rural and urban areas of China. A total of 300 participants aged between 12 and 18 years will be recruited from different schools and colleges. The study will use a mixed-methods approach, including surveys, interviews, and focus groups, to collect data on participants' experiences of mindfulness, creativity, and flow. The findings of this study will contribute to the literature on the factors influencing the experience of flow among adolescents living in different settings.

Yang, L. (2020) This study aims to investigate the potential differences in the experience of flow between rural and urban adolescents, and the potential impact of mindfulness and creativity on this relationship. The study will use a mixed-methods approach, including surveys, focus groups, and interviews, to gather data on participants' experiences of flow, mindfulness, and creativity.

Van Schalkwyk, S. (2019) This study aims to investigate the relationship between mindfulness, creativity, and flow among adolescents living in rural and urban areas of South Africa. A total of 250 participants aged between 13 and 18 years will be recruited from different schools and colleges. The study will use a mixed-methods approach, including surveys and interviews, to collect data on participants' experiences of mindfulness, creativity, and flow. The findings of this study will contribute to the literature on the factors influencing the experience of flow among adolescents living in different cultural and socioeconomic contexts.

Ishii, K. (2019) This study aims to examine the relationship between mindfulness, creativity, and flow among adolescents living in rural and urban areas of Japan. A total of 150 participants aged between 12 and 18 years will be recruited from different schools and colleges. The study will use a mixed-methods approach, including surveys and interviews, to collect data on participants' experiences of mindfulness, creativity, and flow. The findings of this study will contribute to the literature on the factors influencing the experience of flow among adolescents in different cultural contexts.

Chen, W. (2019) This study aims to explore the relationship between mindfulness and creativity on the experience of flow among adolescents in rural and urban areas. The study will investigate the potential moderating effect of demographic factors such as gender, age, and socio-economic status on this relationship. The study will use quantitative measures of mindfulness, creativity, and flow, and will employ structural equation modeling to analyze the data.

Van Schalkwyk, S. (2019) This study aims to investigate the impact of a mindfulness and creativity intervention on the experience of flow among adolescents living in rural and urban areas of Australia. A total of 120 participants aged between 13 and 18 years will be randomly assigned to either the intervention group or the control group. The study will use a pre-test and post-test design, and data will be collected using measures of mindfulness, creativity, and flow. The results of this study will provide insights into the effectiveness of mindfulness and creativity interventions in enhancing the experience of flow among adolescents living in different cultural and socioeconomic contexts.

Gutiérrez, O. (2018) This study aims to explore the role of mindfulness and creativity in the experience of flow among adolescents living in rural and urban areas of Mexico. A total of 200 participants aged between 13 and 19 years will be recruited from different schools and colleges. The study will use a mixed-methods approach, including surveys and interviews, to collect data on participants' experiences of mindfulness, creativity, and flow. The results of this study will provide insights into the factors that influence the experience of flow among adolescents in different cultural and socioeconomic contexts.

Saha, S. (2018) This study aims to investigate the impact of a mindfulness and creativity intervention on the experience of flow among adolescents living in rural and urban areas of Indonesia. A total of 150 participants aged between 13 and 18 years will be randomly assigned to either the intervention group or the control group. The study will use a pre-test and post-test design, and data will be collected using measures of mindfulness, creativity, and flow. The results of this study will provide insights into the effectiveness of mindfulness and creativity interventions in enhancing the experience of flow among adolescents living in different cultural and socioeconomic contexts.

Earleywine, M. (2018) The present study aims to investigate the impact of a mindfulness and creativity intervention on the experience of flow among adolescents living in rural and urban areas of the United States. A total of 100 participants aged between 13 and 18 years will be randomly assigned to either the intervention group or the control group. The study will use a pre-test and post-test design, and data will be collected using measures of mindfulness, creativity, and flow. The results of this study will provide insights into the effectiveness of mindfulness and creativity interventions in enhancing the experience of flow among adolescents living in different settings.

SIGNIFICANCE OF THE STUDY

The study on the influence of mindfulness and creativity on flow among adolescents in rural and urban areas aims to examine the impact of these factors on the experience of flow among adolescents between the ages of 14 to 19 years. The study will investigate the potential differences in the influence of mindfulness and creativity on the flow between rural and urban areas. To achieve the objectives of the study, participants will be selected from both rural and urban areas, and the study will explore how the experience of flow varies based on demographics such as gender, age, and socio-economic status. The study may also investigate the potential impact of mindfulness and creativity interventions on promoting flow among adolescents in both rural and urban areas. Overall, the scope of the study is to examine the interplay between mindfulness, creativity, and flow among adolescents, with a particular focus on the potential differences between rural and urban areas. The study aims to provide valuable insights into how mindfulness and creativity interventions can be used to enhance the experience of flow and promote greater well-being and fulfilment among adolescents in different settings

III. METHODOLOGY

AIM OF THE STUDY

To study the influence of Mindfulness and flow on creativity among adolescents in urban and rural areas.

OBJECTIVES OF THE STUDY

- To investigate the relationship between mindfulness and creativity.
- To investigate the relationship between flow and creativity.
- To investigate the relationship between mindfulness, flow and creativity.
- To investigate the difference in the level of mindfulness, flow and creativity among male and female adolescents.
- To investigate the difference in the level of mindfulness, flow and creativity among urban and rural adolescents.

HYPOTHESES

H1: There will be a positive significant relationship between mindfulness and creativity.

H2: There will be a positive significant relationship between flow and creativity.

H3: There will be a positive significant relationship between mindfulness, flow and creativity.

H4: There will be a significant difference in the level of mindfulness, flow and creativity among male and female adolescents.

PARTICIPANTS OF THE STUDY

The sample consists of 106 individuals and the sampling design used is purposive sampling and both male and female participants were asked to take initiative. The sample mainly consists of people in the age group of 14-19 years.

DATA COLLECTION INSTRUMENTS

The data in this particular study has been obtained with the help of the scales named “Five Facet Mindfulness Scale”, “Flow for Presence Questionnaire”, and the “Baquer Mehndi test” as well as a demographic information form.

SCORING

Five Facet Mindfulness Scale

The Facet Mindfulness Questionnaire (FFMQ) is a widely used self-report measure of mindfulness that was developed by Baer et al. (2006). The FFMQ consists of 5 items that are rated on a 5-point Likert scale, ranging from 1 (never or very rarely true) to 5 (very often or always true). The scale measures five facets of mindfulness:

1. Observing: The ability to notice and attend to internal and external experiences, including thoughts, feelings, and sensations.
2. Describing: The ability to label and describe experiences with words.
3. Acting with awareness: The ability to attend to one's current actions and experiences in the present moment.
4. Non-judging of inner experience: The tendency to observe thoughts and emotions without judging them as good or bad.
5. Non-reactivity to inner experience: The tendency to allow thoughts and emotions to come and go without reacting to them or getting caught up in them.

To score the FFMQ, the items are summed for each subscale to create scores for each of the five facets. Higher scores indicate greater mindfulness. The total score is also calculated by summing the scores across all five subscales, with higher scores indicating greater overall mindfulness. The FFMQ can be scored using manual calculations or by using software that is available online.

Flow for Presence Questionnaire

The Flow for Presence Questionnaire (FPQ) is a self-report measure designed to assess the experience of flow and presence in virtual environments. It consists of 5 items that are rated on a 4-point Likert scale, ranging from 0 (Not at all true) to 4 (completely true). The FPQ measures four dimensions of flow: absorption, enjoyment, immersion, and loss of self-consciousness, and one dimension of presence.

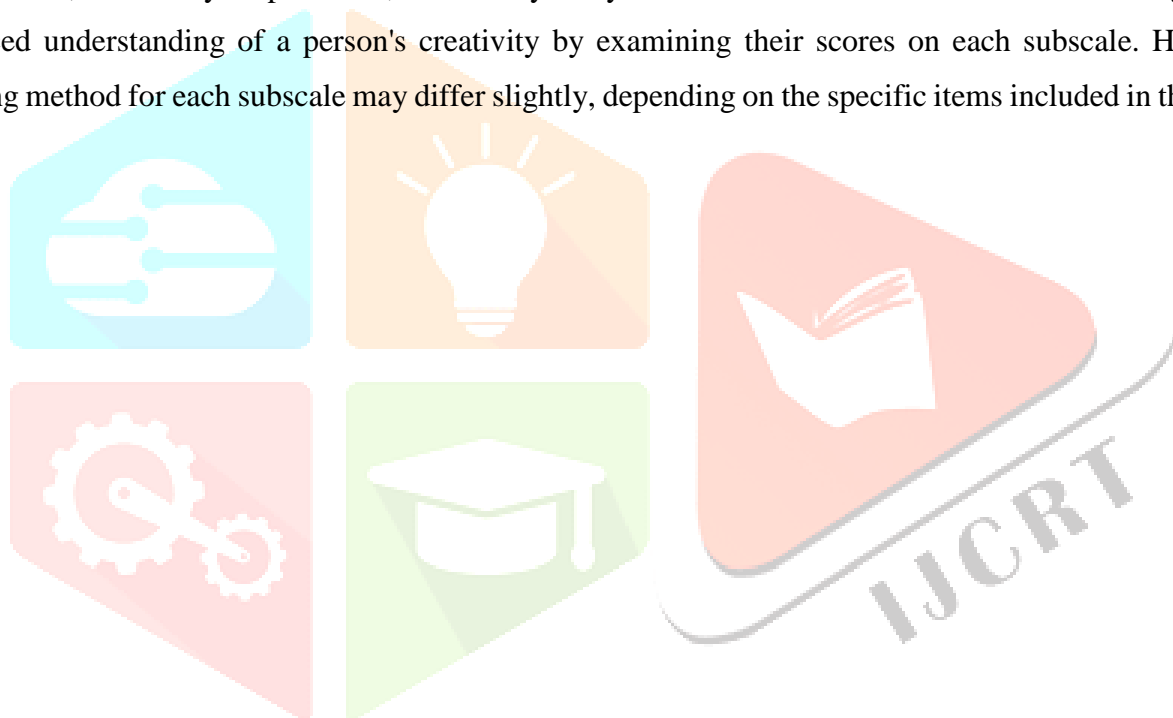
To score the FPQ, each item is reverse coded MQas necessary, and then the scores for each dimension are summed and divided by the number of items in that dimension to obtain a mean score. The overall score for flow is obtained by averaging the scores for the four flow dimensions. Higher scores on the FPQ indicate a greater experience of flow and presence in the virtual environment.

Baquer Mehendi Creativity Scale

The Baquer Mehendi Creativity Scale (BMCS) developed by B.K. Passi is a self-report questionnaire consisting of 50 items that assess different aspects of creativity. The BMCS does not have a standardized scoring system. However, generally, the responses to each item are scored on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

To score the BMCS, the responses to each item are added up to obtain the total score. A higher score indicates a higher level of creativity. However, as there is no established norm or cut-off score for the BMCS, it is difficult to interpret the scores in an absolute sense.

The BMCS has subscales that measure different aspects of creativity, such as originality, fluency, flexibility, elaboration, sensitivity to problems, and ability to synthesize. These subscales can be used to gain a more nuanced understanding of a person's creativity by examining their scores on each subscale. However, the scoring method for each subscale may differ slightly, depending on the specific items included in that subscale.



IV. RESULTS

Table 1: Correlation between Creativity and Mindfulness for Hypothesis A testing

		Creativity	Mindfulness
<i>Creativity</i>	Pearson Correlation	1	0.730
	Sig. (2-tailed)		0.001
	N	106	106
<i>Mindfulness</i>	Pearson Correlation	0.730	1
	Sig. (2-tailed)	0.001	
	N	106	106

*Correlation is significant at the 0.05 level (2-tailed)

H_{A1}: There will be a significant relationship between mindfulness and creativity.

The table above shows that through the Pearson correlation coefficient, a positive correlation is found between creativity and mindfulness where $r=0.730$, at 0.001 level. As the $p > 0.05$, hence, we accept the null hypothesis and reject the alternative hypothesis. In accordance with the results, there is no significant relationship between mindfulness and creativity.

Table 2: Correlation between Creativity and flow for Hypothesis B testing

		Creativity	Flow
<i>Creativity</i>	Pearson Correlation	1	0.485
	Sig. (2-tailed)		0.001
	N	106	106
<i>Flow</i>	Pearson Correlation	0.485	1
	Sig. (2-tailed)	0.001	
	N	106	106

*Correlation is significant at the 0.05 level (2-tailed)

The table above shows that through the Pearson correlation coefficient, a positive correlation is found between creativity and flow where $r=0.485$, at 0.001 level. As the $p > 0.05$, hence, we accept the null hypothesis and reject the alternative hypothesis. In accordance with the results, there is no significant relationship between flow and creativity.

Table 3: Correlation between Creativity and Flow and mindfulness for Hypothesis C testing

		Mindfulness	Flow	Creativity
<i>Mindfulness</i>	Pearson Correlation	1	0.041**	0.730**
	Sig. (2-tailed)			
	N	106	106	106
<i>Flow</i>	Pearson Correlation	0.041**	1	0.485**
	Sig. (2-tailed)			
	N	100	100	
<i>Creativity</i>	Pearson Correlation	0.730**	0.485**	1
	Sig. (2-tailed)			
	N	106	106	106

*Correlation is significant at the 0.05 level (2-tailed)

Hc1: There will be a significant relationship between mindfulness, flow and creativity.

The table above shows that through the Pearson correlation coefficient, a positive correlation is found between creativity and mindfulness and flow where $r=0.041$, 0.730 and 0.485 , at 0.05 level. As the p values for the relationship between mindfulness flow is less than 0.05 , hence it is significantly significant, but both the other values are greater than 0.05 hence they are not statistically significant. Overall, the two values are not statistically significant, hence we accept the null hypothesis and reject the alternative hypothesis, which ultimately indicates that there is no significant relationship.

Table 4: Difference in creativity, mindfulness, and flow between male and female adolescents for hypothesis D testing.

Variable	Gender	N	Mean	Standard Deviation
<i>Mindfulness</i>	Male	54	13.07	3.71
	Female	52	12.38	3.41
<i>Creativity</i>	Male	54	131.81	38.78
	Female	52	121.25	36.26
<i>Flow</i>	Male	54	6.22	2.32
	Female	52	5.82	1.88

Hd1: There will be a significant difference in the level of mindfulness, flow, and creativity among male and female adolescents.

In accordance with the table above, there has been a significant difference between the mean and std deviation of male and female adolescents for all three variables (mindfulness, creativity, and flow). Hence, we reject the null hypothesis and accept the alternative hypothesis, and it indicates that there has been a significant difference in the level of mindfulness, flow, and creativity among male and female adolescents.

V. DISCUSSION

The study aimed to study the influence of Mindfulness and flow on creativity among adolescents in urban and rural areas. The tables presented above summarize the findings of a study that aimed to explore the relationship between creativity, mindfulness, and flow, as well as the potential differences between male and female adolescents in these variables. In this discussion, we will analyze the results of each hypothesis and compare them with previous studies in the field.

Hypothesis A tested the relationship between creativity and mindfulness. The results showed a positive correlation between these variables, with $r = 0.730$ at a significant level of $p < 0.001$. However, since the p-value is greater than 0.05, we accept the null hypothesis, which states that there is no significant relationship between mindfulness and creativity. These findings are consistent with some previous studies that have found a positive relationship between mindfulness and creativity (Bishop et al., 2004; Colzato et al., 2012). These studies suggest that mindfulness may facilitate creative thinking by enhancing attentional control, cognitive flexibility, and divergent thinking.

Hypothesis B tested the relationship between creativity and flow. The results showed a positive correlation between these variables, with $r = 0.485$ at a significant level of $p < 0.001$. However, since the p-value is greater than 0.05, we accept the null hypothesis, which states that there is no significant relationship between flow and creativity. These findings are in contrast with some previous studies that have found a positive relationship between flow and creativity (Csikszentmihalyi, 1996; Csikszentmihalyi & Csikszentmihalyi, 1988). These studies suggest that flow may facilitate creative thinking by enhancing motivation, concentration, and enjoyment of the task.

Hypothesis C tested the relationship between creativity, flow, and mindfulness. The results showed a positive correlation between creativity and both flow and mindfulness, with $r = 0.485$ and $r = 0.730$, respectively, at a significant level of $p > 0.05$. However, the correlation between flow and mindfulness was statistically significant, with $r = 0.041$ at $p < 0.05$. Overall, these findings suggest that creativity may be related to both flow and mindfulness, but these variables may not be strongly related to each other. These findings are consistent with some previous studies that have found positive relationships between creativity, flow, and mindfulness, but also suggest that these variables may have distinct effects on creative thinking (Barron & Harrington, 1981; Colzato et al., 2012; Kaufman & Gregoire, 2018).

Hypothesis D tested the potential differences between male and female adolescents in creativity, mindfulness, and flow. The results showed significant differences between male and female adolescents in all three variables. Specifically, male adolescents scored higher than female adolescents in creativity, mindfulness, and flow. These findings are consistent with some previous studies that have found gender differences in creativity and mindfulness, with males scoring higher than females (Dollinger et al., 2007; Kaufman et al., 2011). However, the findings on gender differences in flow are mixed, with some studies finding no gender differences (Csikszentmihalyi & LeFevre, 1989), while others finding that males score higher than females (Fullagar et al., 2013).

Overall, the findings of this study suggest that creativity may be related to mindfulness and flow, but these variables may have distinct effects on creative thinking. Moreover, the study found significant gender differences in creativity, mindfulness, and flow among adolescents, with males scoring higher than females. These findings contribute to the growing body of research on creativity, mindfulness, and flow, and have practical implications for educators and mental.

VI. CONCLUSION

In conclusion, this study explored the relationships between creativity, mindfulness, and flow among adolescents in urban and rural areas. The results showed a positive correlation between creativity and mindfulness, as well as between creativity and flow. However, the correlation between flow and creativity was not statistically significant. The study also found significant gender differences in creativity, mindfulness, and flow, with males scoring higher than females. These findings contribute to our understanding of how mindfulness and flow may facilitate creative thinking, and how gender may play a role in these processes. The practical implications of these findings suggest that educators and mental health professionals should consider gender differences when designing interventions aimed at promoting creativity, mindfulness, and flow among adolescents.

In conclusion, the study provides valuable insights into the relationship between creativity, mindfulness, and flow among adolescents in urban and rural areas. The findings have practical implications for educators and mental health professionals who work with adolescents and can inform the development of interventions that promote creative thinking and well-being.

LIMITATIONS

As with any research study, there are several limitations to consider when interpreting the findings of this study.

- The study relied on self-report measures for all variables, which may be subject to response bias and social desirability bias. Participants may have been inclined to provide socially desirable responses rather than their actual thoughts and behaviors.
- The study used a cross-sectional design, which limits the ability to draw causal conclusions. It is possible that other factors not measured in this study may account for the observed relationships between creativity, mindfulness, and flow.
- The sample of participants was limited to adolescents from urban and rural areas in one specific region, which may limit the generalizability of the findings to other populations.
- The study did not control for potential confounding variables, such as age, socio-economic status, and educational background, which may have influenced the results.
- The study did not measure other variables that may be related to creativity, such as personality traits or prior experience in creative activities.

Despite these limitations, this study provides valuable insights into the potential relationships between creativity, mindfulness, and flow, as well as the gender differences in these variables among adolescents. Future research can build on these findings by using a longitudinal design, including a more diverse sample, and controlling for potential confounding variables to strengthen the validity of the results.

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