

The Touch of Kindness: The Influence of Stuffed Toy on Perceived Warmth in Emotional Video Content

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ABSTRACT

This experimental study investigated the influence of a stuffed toy on perceived warmth elicited by emotional video content. Warmth was assessed across several dimensions: empathy and compassion, personal impact and tenderness, humanity, and positive feelings. Thirty participants were randomly assigned to view emotionally evocative videos either with or without a stuffed toy present. Contrary to the initial hypothesis, no significant difference was found in overall warmth perception between the two groups. However, an independent-samples t-test revealed significantly increased empathy and compassion in the toy condition ($t = -2.3887$, $p = 0.024$, $d = -0.8722$), while other dimensions showed no significant differences. These findings support the null hypothesis, suggesting that the toy does not generally alter warmth perception, but warrant further investigation into its specific effect on empathy and compassion.

While the study revealed a significant effect on empathy and compassion, other aspects of perceived warmth did not show significant changes. This could be attributed to several factors. Firstly, participants may have possessed personality traits that led them to seek comfort during the experiment, potentially diminishing the impact of the stuffed toy. Secondly, the intensity of the emotions evoked by the video might have been strong enough to overshadow the comforting effect of the stuffed toy. These factors suggest that individual differences and the intensity of emotional content might have influenced the results.

Keywords: Stuffed Toy, Empathy, Warmth Perception

INTRODUCTION

In today's demanding world, finding comfort during emotional challenges is essential. While often associated with childhood, stuffed toy offers a comforting presence that can be appreciated by people of all ages (Haver&Matetovici, 2022). Stuffed animals hold a special appeal for both children and adults. These cuddly companions often become cherished possession, even if they are a bit unkempt. They serve as a source of comfort and anxiety relief, acting as a calming presence or an imaginary friend during emotional times. This sense of comfort and warmth can be transferred to these objects, creating a strong emotional connection (Montalbo,2016).

Research suggests that comfort objects, link stuffed animals, can significantly improve emotional well-being and serve as valuable tools in therapeutic settings for managing anxiety, stress, and trauma. Studies show that these objects provide emotional support by triggering the release of hormones like oxytocin, which promotes feelings of safety and comfort (Good Life Bean, 2023). Additionally, stuffed animals are increasingly incorporated into behavioral therapy for both child and adults, helping individuals cope with anxiety of comfort and security.

A recent study by Montalbo (2023) explored the use of stuffed animals in ground therapy with psychology students. The research found that students used these toys as a source of comfort, finding them effective in managing emotions and coping with difficult situations. Stuffed animals were also seen as tools for emotional displacement, allowing students to shift their feelings onto a neutral object, and for grounding techniques,

helping them focus on the present moment. Another research study reported that a smart toy, a robotic plush toy, was naturally incorporated into emotional regulation practices. Engaged with the toys in moments when they wanted to relax, find comfort, and experience warmth. The data suggested that the emotional connection to the toy appeared to be the driving force behind this strong engagement in emotional regulation (Theofanopoulou, 2019).

Stuffed animals can be seen as attachment objects, which are inanimate items that evoke strong emotional connections in individuals (Dozier & Ayers, 2020). Research on children in daycare settings has shown that they develop stronger attachments to stuffed toys compared to hard toys (Fortuna et al., 2014). This preference for stuffed toys is likely due to the multisensory experience they offer, where the warmth, smell, and soft appearance of the toy can make it feel more real and meaningful (Schreier, 2020). This study will fill the gap by contributing to a more holistic understanding of how viewers respond and interact to emotional video experiences.

This study attempted to elaborate and investigate the effect of stuffed toy presence on the perceived warmth. Emotional video contents are being utilized to measure and assess the warmth perceived by students, for them to answer the following questions.

1. Does the presence of stuffed toy while watching emotional content significantly increased the warmth perceived compared to the same content but with the absence of stuffed toy?
2. How does the emotional video content influence the student's emotional responses, and does the presence of the stuffed toy elicits warmth and comfort to the students?
3. Does the presence of stuffed toy influence the student's empathy?

The significant implications of this research lie in it is potential to contribute to a deeper understanding of how comfort objects participants among college students, influence emotional processing and perception. The findings of this study can significantly enhance individualized comfort strategy in a healthcare setting as this study can be beneficial to professionals. Therapist and guidance counselor can utilize the study's finding to recommend comfort objects to their clients, like weighted blankets or softer toys to make them feel better and comfortable all throughout the session.

This study could better explain by the concept of transitional object attachment (Winnicott, 1951). Winnicott's theory emphasizes the importance of transitional objects in helping infants and young children navigate the separation from their primary caregivers. He believed that these objects, often inanimate like blankets or stuffed animals, provide a sense of comfort and security, allowing the child to move from the world of primary dependence to a more independent state. Transitional objects help children develop the capacity for emotional attachment and relationships with others. (Oriard, 2024).

METHODOLOGY

Participant

The study involved 30 college students ($n=30$) from various courses and year levels at UM Digos College. Random assignment is then used to prevent biases and improve internal validity (Bhandari, 2023). To minimize bias and ensure equal group sizes, participants were randomly assigned to the two conditions using block randomization. This method involved creating blocks of participants, with each block containing an equal number of participants for each condition. Within each block, subjects were randomly assigned to either the "with stuffed toy" or "without stuffed toy" group, ensuring that the groups remained balanced throughout the experiment.

Instrument

A pre-screening K10 questionnaire, adapted from Kessler et al. (year), was used to identify participants experiencing minimal distress. A Perceived Warmth Questionnaire (PWQ), developed by the researchers and validated by expert panels, aimed to measure personal impact and tenderness, positive feelings, empathy and compassion, and humanity. However, Fleiss' kappa analysis yielded a coefficient of - 0.096, indicating inter-

rater reliability significantly below chance agreement (Cicchetti & Feinstein, 1990). Potential sources of this low reliability include ambiguous item wording, inadequate rater training (Shrout & Fleiss, 1979), the inherent subjectivity of measuring “perceived warmth,” or flaws in the scale’s construct validity.

Consequently, the reliability and validity of the PWQ are questionable (Landis & Koch, 1977), compromising the trustworthiness of any findings derived from its application. To enhance the PWQ's psychometric properties, the researchers should refine item wording for clarity, develop comprehensive scoring guidelines, implement rigorous rater training (Gwet, 2014), and conduct pilot testing to address any remaining inconsistencies. Exploring alternative measurement strategies for "perceived warmth" may also be beneficial.

Procedure

Following the Dean’s approval, the data gathering began. In the recruitment process, participants were selected by means of random sampling. This method ensures that each potential participants had an equal chance of being selected (Thomas, 2020), the researchers garnered 47 participants. The study conducted pre- screening on the participants using the Kessler Psychological Distress Scale (K10) , a 10 item questionnaire that measure psychological distress. This ensures that participants meet particular inclusion and exclusion criteria, as well as other appropriateness difficulties (Study Scavenger, 2024). K10 scores revealed that out of 47 participants, only 30 scores 10-19 are most likely to be well and is suitable and right participants to be part of the experiment.

After the pre-screening, block randomization is then utilized assign 30 participants to the two treatments. The 30 participants are assigned to each of the two treatments, where Group A participants interacted with a stuffed toy throughout the experiment, while Group B participants did not. During the experiment, participants with the presence of stuffed toy ($n=15$) were asked to watch emotional videos that is 12-minute long while embracing the stuffed toy, while participants without the stuffed toy ($n=15$) were asked to watch the same emotional videos with the absence of the stuffed toy.

Experimental setting is maintained and controlled to ensure consistency in both groups, with participants watching in the psychology laboratory under similar lighting and sound conditions, moreover, researchers are on standby to immediately refer any participants who experiences emotional distress to the university's guidance clinic. Following the video viewing, the researchers gave enough time for the participants to process their thoughts, then the data collection starts. Participants in each group completed a validated 15-item questionnaire that measures personal impact and tenderness, positive feeling, empathy and compassion, and humanity. The questionnaire perceived warmth scale is developed by the researchers and validated by the panels by the means of inter-rater. The completion time of the questionnaire are not limited. Debriefing session is then conducted after the experiment.

This study utilized a true experimental design, wherein participants were randomly assigned to either experimental group or control group by means of block randomization. The experimental group received treatment where there is presence of stuffed toy while watching the emotional video content, while the control group received treatment condition without the presence of stuffed toy while watching emotional video content. Each group is exposed a single treatment condition, with participants that have presence of stuffed toy and participants with the absence of stuffed toy while watching the projected emotional video content thus utilizing between-subject design.

Ethical Considerations

Participants obtained informed consent via a signed form that detailed the study's purpose, procedures, potential benefits, and risks. All data were anonymized and maintained confidentially, with robust security measures in place. Participation was entirely voluntary, and withdrawal was permitted at any time without penalty. A comprehensive debriefing, including access to stress management resources, was provided post-study. A data management plan ensured secure data handling and disposal. Potential conflicts of interest were proactively addressed, and the study protocol underwent ethical review to safeguard participant well-being and uphold research integrity.

RESULTS

The results of this study have revealed the influence of a stuffed toy on perceived warmth during emotional video viewing. This section has presented the findings of the study, examining the effects of stuffed toy intervention on perceived warmth and exploring the potential implications of those findings.

Table 1. Perceived Warmth Scores: With stuffed toy vs. without stuffed toy

	Group	N	Mean	Median	SD	SE
Personal Impact and Tenderness	With stuffed toy	15	3.32	3.40	0.471	0.122
	without stuffed toy	15	3.37	3.40	0.544	0.141
Positive Feelings	with stuffed toy	15	3.42	3.50	0.705	0.182
	without stuffed toy	15	3.43	3.50	0.810	0.209
Empathy and Compassion	with stuffed toy	15	2.70	2.50	0.751	0.194
	without stuffed toy	15	3.47	3.50	0.990	0.256
Humanity	with stuffed toy	15	3.24	3.33	0.462	0.119
	without stuffed toy	15	3.16	3.00	0.711	0.184

Descriptive statistics revealed similar mean scores for perceived warmth across both groups (presence of stuffed toy and absence of stuffed toy) for personal impact and tenderness, positive feelings, and humanity. Personal Impact and Tenderness: Condition with stuffed toy ($M = 3.32$, $SD = 0.471$), Condition without stuffed toy ($M = 3.37$, $SD = 0.544$). Positive Feelings: Condition with stuffed toy ($M = 3.42$, $SD = 0.705$), Condition without stuffed toy ($M = 3.43$, $SD = 0.810$). Empathy and Compassion: Condition with stuffed toy ($M = 2.70$, $SD = 0.751$), Condition without stuffed toy ($M = 3.47$, $SD = 3.50$). Humanity: Condition with stuffed toy ($M = 3.24$, $SD = 0.462$), Condition without stuffed toy ($M = 3.16$, $SD = 0.711$). The results showed personal impact and tenderness, humanity, and positive feelings showed a different mean score but indicated the same result which no influence of stuffed toy in participants perceptions of aspect of warmth. However, a notable difference was observed in empathy and compassion, with the condition involving the stuffed toy showing a significantly higher mean score compared to the condition without the stuffed toy, potentially enhancing this emotion. Research evidences suggest that emotional empathy is more strongly influenced in aspect of warmth (Negrao, 2022). Each group consisted of 15 participants.

Table 2. Normality Tests for Study Variables

	W	P
Personal Impact and Tenderness	0.956	0.245
Positive Feelings	0.964	0.386
Empathy and Compassion	0.974	0.668
Humanity	0.973	0.625

A Shapiro-Wilk test was conducted to check if the data for perceived warmth followed a normal distribution. The results showed no significant deviations from normality for all aspects of perceived warmth: personal impact and tenderness ($W = 0.956$, $p = 0.245$), positive feelings ($W = 0.964$, $p = 0.386$), empathy and compassion ($W = 0.974$, $p = 0.668$), and humanity ($W = 0.973$, $p = 0.625$). This suggests that the assumption of normality was met for this variable, meaning the data was distributed in a way that allowed for the use of parametric statistical tests.

Table 3. Independent Sample T-Test

		Statistic	df	p		Effect size
Personal Impact and Tenderness	Student's t	-0.2870	28.0	0.776	Cohen's d	-0.1048
Positive Feelings	Student's t	-0.0601	28.0	0.952	Cohen's d	-0.0220
Empathy and Compassion	Student's t	-2.3887	28.0	0.024	Cohen's d	-0.8722
Humanity	Student's t	0.4058	28.0	0.688	Cohen's d	0.1482

Researchers investigated the impact of hugging a teddy bear while watching emotional videos. An independent-samples t-test revealed a significant increase in perceived empathy and compassion among participants who hugged a teddy bear ($t = -2.3887$, $p = 0.024$, $d = -0.8722$). However, no significant differences were observed in personal impact and tenderness ($t = -0.2870$, $p = 0.776$, $d = -0.1048$), positive feelings ($t = -0.0601$, $p = 0.952$, $d = -0.0220$), humanity ($t = 0.4058$, $p = 0.688$, $d = 0.1428$). Based on Cohen's (1988) benchmarks, the study found no significant effect on perceived warmth for personal impact and tenderness, positive feelings, and humanity. The null hypothesis for personal impact and tenderness, humanity and positive feelings aspects was failed to reject, as the p-values were greater than 0.05. However, the null hypothesis for empathy and compassion was rejected, indicating a significant effect. This suggests that hugging a teddy bear may specifically enhance feelings of empathy and compassion while watching emotional videos. Empathy allows us to experience the full range of emotions alongside others, both positive and negative. This means people can feel happy when shared with joy of others, and can also understand and share their pain when people empathize with someone who is suffering and compassion is characterized by a deep concern for another person's suffering, coupled with a desire to help alleviate their pain (Singer, 2014).

DISCUSSION

Based on research findings, the presence of stuffed toy while watching emotional content partially increased the warmth perceived compared to the same content but with the absence of stuffed toy in the aspect of empathy and compassion. Empathy and compassion fall within the affective domain, which involves the ability to connect with and understand the experiences and feelings of others, including the capacity to experience distress on their behalf (Ferrari, Fazeli, Mitchell, Shah, & Nlyer, 2022). However, there wasn't a significant difference in perceiving warmth for the other aspects. Emotional video content itself can trigger a range of emotions in viewers. Content that evokes strong emotions often leads to greater engagement, as viewers may seek to prolong the emotional experience they are having (Kapoor, Narayanan, & Sharma, 2022). The presence of stuffed animals appears to enhance students' feelings of warmth and comfort, particularly in terms of empathy and compassion. This suggests that the stuffed animals act as a comforting presence, facilitating a deeper emotional connection with the content. The research suggests that the presence of a stuffed toy can significantly influence students' empathy towards the characters in a video. The study found that students who had a stuffed toy present while watching the videos appeared to feel more empathetic and compassionate towards the characters.

This study, while promising, has limitations that warrant further investigation. The small sample size (30 participants) may limit the generalizability of the findings. A larger and more diverse sample would strengthen the results and increase their applicability. Additionally, the study's focus on a specific cultural context means its findings may not be universally applicable. Exploring the influence of stuffed toys across diverse cultures is crucial. The study only examined immediate effects. Longitudinal studies are needed to understand the long-term impact of stuffed toys on emotional well-being and empathy. Emotions have a lasting impact, often persisting long after the event that triggered them and shaping our subsequent actions (Adolphs & Andler, 2018). This highlights the significance of understanding how external stimuli can influence our emotional responses, as it's essential for maintaining emotional well-being. Exploring how the presence of a stuffed toy influences emotional responses over time could yield further insights.

Moreover, the study did not account for individual differences in attachment to stuffed toys or prior experiences that could influence emotional responses. Participants with strong positive associations with stuffed toys may experience heightened emotional engagement compared to those without such associations. Winnicott's (1953) theory of transitional object received a partial support from our findings. While the use of transitional object did not universally enhance emotional regulation as the theory predicted, our results indicate that hugging a teddy bear during exposure to emotional video content appeared to significantly enhance feelings of empathy and compassion, as evidenced in the table 3. showing a score $t = -2.3887$, $p = 0.024$, $d = -0.8722$. This observation suggests a potential link between teddy bear use can enhanced empathy during exposure to emotional stimuli, enabling participants to experience a full range of emotions alongside others, both positive and negative. However, the lack of a broader impact on emotional regulation implies that the role of transitional objects might be more specific than initially hypothesized, possibly focusing on social-emotional processing rather than general emotional self-regulation.

The results suggest that while stuffed toys may not universally enhance feelings of warmth across all metrics, they may play a critical role in fostering empathy and compassion. This has implications for therapeutic settings where emotional support is crucial. For instance, incorporating comfort objects in therapy sessions or emotional processing activities could enhance clients' ability to connect with their feelings and those of others. This study suggests that hugging a stuffed toy can boost empathy and compassion, but future research is needed to understand why and how this happens. By digging deeper into how comfort objects affect our feelings, we can improve psychological practices and make people feel better in different situations.

CONCLUSION

The study that investigated the influence of stuffed toys on perceived warmth from emotional video content indicates a potential link between comfort objects and increased empathy and compassion. While the overall warmth perception did not significantly differ between groups, a statistically significant increase in empathy and compassion was observed in the group using a stuffed toy. This suggests a more nuanced relationship, where the presence of a comfort object may specifically enhance certain emotional responses rather than broadly impacting warmth perception. The lack of a more general effect may be explained by individual differences in comfort-seeking behaviors and the intensity of the emotional stimuli in the videos.

RECOMMENDATION

The results of this study failed to find the significant difference between the overall warmth perceived by watching emotional video content with and without the presence of the stuffed toy. However, the limited sample size (n=30) may have compromised the conclusion acquired from the study. Future studies should consider widening the scope of the participants, address the limitations of sample size, explore long-term effects, and consider individual differences in attachment to comfort objects. The study's implications for therapeutic settings are promising, suggesting that incorporating comfort objects in emotional processing activities could enhance therapeutic outcomes, particularly for individuals struggling with anxiety or trauma, especially children and adolescents. Further investigation into the use of comfort objects in therapeutic contexts is crucial to understand how they can be effectively integrated to improve emotional well-being.

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