

Collaborative Story Writing as a Method to Enhance Empathy

A thesis submitted for the partial fulfilment of the requirement for the degree of

MASTER OF ARTS IN PSYCHOLOGY

SUBMITTED BY

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CERTIFICATE

This is to certify that the thesis entitled “Collaborative story writing as a method to enhance empathy” is being submitted in partial fulfilment of requirement for the award of degree of Master of Arts in Psychology, submitted in the Thapar School of Liberal Arts and Sciences, Thapar Institute of Engineering and Technology, Patiala and is a Bonafide work carried out under the supervision of Dr. Vandana Singh, Thapar School of Liberal Arts and Sciences, Thapar Institute of Engineering and Technology, Patiala and that no part of this thesis has been submitted for the award of any other degree.



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CANDIDATE'S DECLARATION

I hereby declare that the work presented in this thesis entitled, “Collaborative story writing as a method to enhance empathy” being submitted in partial fulfilment of requirement for the award of Degree of Master of Arts in Psychology, submitted in the School of Liberal Arts and Sciences, Thapar Institute of Engineering and Technology, Patiala, is an authentic record of my own work carried out under the supervision and guidance of Dr Vandana Singh. (School of Humanities and Social Sciences, Thapar Institute of Engineering and Technology, Patiala) and refers other researcher's work which are duly listed in the reference section.

The content written in this thesis has not formed the basis for the award of any other degree of this or any other university.



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ABSTRACT

Empathy has long been used and mentioned in psychology; it is the ability to understand people and consciously try to put oneself in the place of another person to understand their thoughts and feelings. This helps interpersonal skill development and social functioning. Narrative-based approaches have been studied by researchers as a tool to enhance empathy. While researchers have focused on passive forms of narrative, there is still much to explore in narratives as the active form. The present study gives a deeper understanding of this active form of narrative as collaborative story writing. It has also integrated transportation and affect to provide a more comprehensive understanding.

The present study aims to explore the relation between story writing and empathy, specifically focusing on collaborative story writing as a method. It examines the difference in individual versus collaborative story writing in enhancing empathy while also assessing the role of narrative transportation. The study has worked on finding the possible factors contributing to the change of empathy.

A mixed-method design has been used in the study to give up both practical and theoretical understanding. A group of college students participated in this study. Different tools such as the empathy scale, transportation scale, scale for affect and social desirability along with the collaborative story-writing task were used. The study also used semi-constructed interviews for the qualitative data.

The study found a strong relation between narrative and empathy. There was a significant increase in the empathy level after intervention, especially in the group condition. Social desirability and mood effects show significant influence on empathy. The qualitative finding revealed various

psychological processes involved in the development of empathy during story writing. Participants demonstrated various aspects such as perspective-taking shifts in identification with multiple characters, moral reasoning, communication awareness and others through the story-writing activity. This shows use in social bonding and grief-related therapy and family therapy. Thus, the study has strong implications in clinical and counselling settings along with the educational field.

Chapter: 1

Introduction

Empathy is defined as the ability to understand others by being at their position and seeing things from their point of view. It is considered an important skill in showing prosocial behaviour and emotional connectedness, while playing a crucial role in building interpersonal relationships for social functioning and mental health. Due to this, there has been a major interest in establishing and identifying tools to be used to enhance empathy. Many research works have tried to identify and develop methods for active development of empathy, particularly in the context of education, counselling and group interventions. There are multiple methods and approaches that have been identified as a strong base to develop empathy, among which narrative-based methods have been seen as a promising tool for fostering empathy. Narrative-based methods allow individuals to merge themselves in diverse perspectives and emotional experiences.

Story writing is a form of narrative engagement, which allows individuals to put their thoughts and emotions in a form of stories. Through these stories they get to experience the scenarios, connect with different characters and understand their internal state. They also get an idea of the various perspectives that might differ from their own. Previous research has majorly focused on the passive form of narrative engagement, such as listening to stories or reading stories, but the recent research majorly emphasises creating narratives. As empathy is seen as a prosocial skill which helps in interpersonal development, collaborative story writing has come up as a method that can help build empathy while engaging with others. It is a dynamic process where individuals co-construct the narratives, have a shared imaginative experience and negotiate meanings of their own. Despite its potential, there is limited exploration for collaborative story writing as an intervention for enhancing empathy. The current study tries to address this gap and explore the

impact of collaborative story writing in enhancing empathy while considering the role of narrative transportation and affect.

1.1 Empathy and its psychological process

Empathy has always been an area of interest for research and is widely studied in the field of psychology. It is largely understood as the ability to understand shared thoughts and emotional expressions of another person. Davis (1983) proposed a multidimensional model for empathy that comprised cognitive and affective components. The cognitive component here refers to the ability to understand the feeling and point of view of another person. Whereas the affective component is the ability to resonate with the other person's emotional state. This dual component relies on distinct but interacting psychological processes and has been one of the most influential frameworks in empathy research (Singer, 2006).

The cognitive component of empathy consists of perspective-taking, which is the conscious effort to view things from the other person's point of view (Davis, 1983). It requires them to keep their own experience aside and try to understand what another person might think and feel in a given situation.

The affective component of empathy, on the other hand, is described as the degree to which an individual feels the emotional experience of another person. Research indicates that people with high affective empathy often exhibit stronger emotional and psychological reactions to others in distress. (Hatfield et al., 1993).

Moreover, empathy is considered a fluid trait. Research has shown that it can be enhanced and developed through deliberate engagement and with the experience of others (Zaki, 2019).

Activities and interventions that promote perspective-taking, emotional engagement and leading to imaginative engagement with others' lives have been seen to enhance empathetic capacity (Botson, 2009). Therefore, this fluidity in empathy provides a space for using different activities and tools, such as story writing, for the development of empathy.

1.2 Role of Narratives

While empathy is grounded with these multidimensional processes, researchers have actively explored experiential approaches to develop these dimensions. Among all the approaches, narrative-based methods have caught the major attention of the researchers. Narratives allow individuals to experience a series of events in a form of story; it provides them a space beyond their own experience and gets them involved with the imaginative and emotional world, and also let them engaged in others' lives and perspectives. This is one of the reasons that storytelling has been recognised as a useful psychological tool (Mar & Oatley, 2008).

Research findings suggest that exposure to narratives leads to enhancement of perspective-taking and empathy. (Mar & Oatley, 2008). Also proposed that fiction plays a stimulating role for social experience; it provides readers a safe and imaginative space to practice engagement with others by understanding their minds and feelings.

The narrative transportation theory developed by Green & Brock (2000) explains this effect more prominently. According to the theory, people engaged in narratives get deeply immersed in a story. Individuals are mentally and emotionally transported to that imaginary world. It experimentally demonstrates that the more readers get engaged and transported to the story, the more likely they are to engage with the emotional perspectives and the beliefs of the characters in the story. The

studies demonstrate that narrative writing about a fiction character led to increased empathy more significantly as compared to writing on an unrelated topic (Bientzle et al., 2021).

Importantly, the narrative transportation framework does not limit itself to passive consumption, and therefore an active creation of stories can be proposed. The constructing of characters and giving them different perspectives in the story may engage narrative transportation more deeply as compared to reading it alone. Thus, opening new pathways for current studies.

1.3 Collaborative story writing

As narratives allows the expression of thoughts and feelings, different tools were identified one of which being collaborative story writing. In collaborative story writing these thoughts and feelings are shared by two or more individuals collectively. Participants share their ideas, negotiate among themselves, discuss each other's perspectives and respond to contributions. They build a shared imaginative space for them (Satchwell et al., 2020). This allows participants to engage in a joint meaning-making and not just processing their own experience.

As collaborative storytelling requires social interaction, it provides a natural setting to practice and refine empathetic responses. It also involves shared meaning-making where participants listen to each other's ideas and build upon those ideas. This promotes mutual understanding and perspective-taking as there is an active engagement with the story.

Collaborative story writing has several advantages to it, one of which is that it requires participants to co-construct a narrative, which leads to a deeper engagement with different perspectives. The participants need to engage and respond to each other's thoughts and imaginative contributions. Also, as story writing in a group requires social interaction it enhances narrative transportation.

As the participants experience the story not just by themselves but in a shared space with the group (Green & Brock, 2000).

Furthermore, constructing a story in a group allows the participants to express their feelings and emotions through the characters; this provides them a safer space for emotional expression compared to a personal disclosure (Pennebaker, 1997). Also as suggested by social learning theory (Bandura, 1977), when individuals observe different perspectives and empathetic responses of their peers, they might model those behaviours.

While collaborative story writing has various advantages, it too has limitations. While constructing stories in a group setting, there are possibilities of dominance by one participant, while a few of the other participants may restrict themselves from sharing much. This usually results in an unequal level of emotional engagement (Satchwell et al., 2020). Additionally, from the perspective of research and study, it becomes very difficult to measure the individual's level of emotional change as the task itself is performed in a shared space. These limitations are duly acknowledged in the design of the present study.

1.4 Theoretical framework

The study is grounded with multiple theoretical frameworks, providing a proper base for further study. These theories collectively explain how collaborative story writing can be effective to develop empathy.

Narrative transportation theory (Green & Brock, 2000) serves as the core theoretical foundation for this study. It proposes that if individuals give focused attention and get emotionally involved, they get mentally and emotionally transported to the story. The higher the transportation, there are

more chances for stronger emotional engagement. As the individuals get strongly involved in the story, they are likely to adopt the emotional experiences and perspectives of the character in the story. Therefore, it plays a crucial role in fostering empathy through storytelling or story writing.

Social learning theory (Bandura, 1977) provides a complementary explanation for using collaborative story writing as a part of developing empathy. According to Bandura, individuals learn behaviour, attitude and emotional responses by observing and interacting with others, apart from their own experience. In collaborative story writing, participants interact with each other in a shared space to build upon each other's thoughts while observing and learning from each other's responses and emotional expressions.

The expressive writing paradigm (Pennebaker & Beall, 1986; Pennebaker, 1997) is another theory which supports the study. It demonstrates that when an individual writes about their emotional experiences, even if it is about a small scenario, it helps in improving their psychological and physical wellbeing. Thus, it supports the use of structured writing as a psychological intervention. In the context of story writing, the paradigm suggests that the process of engaging in expressions of emotion in a narrative language has deep psychological value.

Finally, the study is also based on the Social constructivist theory (Vygotsky, 1978) which proposed that learning and emotional development occur through social interaction. According to Vygotsky, higher psychological functioning such as perspective-taking and complex reasoning develops through shared meaning-making and social interaction. As a creative story-writing process, it allows participants for this social interaction and creating a shared meaning of the fictional world and helps deepen the empathetic process.

1.5 Statement of the problem

While there is evidence for enhancing empathy through narratives, the existing research mostly focuses on either reading or listening to narratives that are created by others. Comparatively little attention is given to the active creation of stories as a psychological intervention. Reading the stories involves passive engagement, whereas creating the story allows an individual to live the characters and construct the perspective of the characters rather than just consuming the already decided perspective. Writing stories requires imagination and a degree of perspective-taking that is not much needed in reading (Shaffer et al., 2019).

As major attention in the previous studies has been on storytelling in story reading, there is still much to explore for collaborative story writing as an intervention. Aligning with the social constructivist theory and the social learning theory, it is a significant gap which needs to be worked on.

The existing research has also limited exploration for narrative transportation and qualitative views towards these processes. Therefore, the present study aims to explore whether collaborative story writing can work as an intervention for both individuals and, especially, groups. The study also takes into account if narrative transportation and affective states serve as a bridge for these effects. It also focuses on both quantitative measures and theoretical understanding of these interventions in regard to empathy.

1.6 Objectives

In the light of the research and the area that needs to be explored the study comprises of the following objectives:

- To explore if story writing as an intervention can increase empathy.
- To explore the influence of positive & negative effect on the level of empathy.

- To examine the difference in effect of individual and group story-writing on empathy levels among participants.
- To assess the role of narrative transportation in the empathy increase process.
- To explore the underlying factors and experiences that contribute to changes in empathy.

Collectively, these objectives aim to provide a comprehensive understanding of how storytelling functions as a tool for enhancing empathy by integrating both quantitative and qualitative perspectives. By examining different forms of storytelling, emotional influences, and narrative engagement, the study seeks to identify not only whether empathy increases, but also how and why these changes occur. This combined approach will offer deeper insights into the mechanisms underlying empathy development and help establish storytelling as a meaningful and evidence-based intervention in psychological and educational settings.

1.7 Research Questions

- Can storytelling or group expression of emotions increase empathy?
- Is there a significant difference in empathy levels between participants who write stories individually and those who write stories in groups?
- Does interaction affect one's emotion and perspective?
- To what extent does narrative transportation predict or influence the increase in empathy after the storytelling activity?
- Does mood and effect have any influence on empathy level?
- Is social desirability an influence in measuring empathy?
- Are there other factors that effect empathy development?

Chapter: 2

Review of Literature

2.1 Overview

Empathy is considered one of the important topics in psychology research. Researchers have focused not only on understanding empathy but also on finding methods and techniques to strengthen it. Fields such as education, clinical psychology and social psychology have studied empathy development in areas that might influence empathy. The interest has also been on the various experiences, an area that helps increase empathy. Among these approaches, one of the point of attraction has been stories and narratives. Reading, listening and creating stories about different characters involving their perspectives, thoughts and emotions also allow individuals to express their own feelings.

The present study has been built upon this existing research and tries to explore the impact of collaborative story writing as a method in improving empathy. The literature review follows by first explaining the concept of empathy and its multidimensional approaches, discussing different theoretical frameworks such as social constructivist theory, social learning theory and the expressive writing paradigm in detail.

This chapter also focuses on the review of previous research, based on examining empathy, narrative writing, and measures of empathy and interventions. An effort will be made to critically evaluate the strengths, limitations and gaps in the existing study and the gaps that the present study designs to address.

2.2 Conceptualising empathy

Empathy is one of the most studied topics in psychology, yet it remains difficult to define it clearly. The reason being the complexity of empathy. It includes various factors taking place simultaneously such as thinking, feeling, motivation and relationships with others. Due to these various components, defining empathy in a brief becomes difficult. Therefore, over time researchers have tried to understand and include these aspects in defining empathy.

2.2.1 Cognitive and affective components of empathy

In a most accepted framework, researchers define empathy with two components, cognitive empathy and affective empathy. Davis (1983), in his foundational multidimensional model, proposed that empathy is a set or combination of related abilities. To study this, he developed the interpersonal reactivity index (IRI). It consists of 28 items and is a self-report measure with four sub-dimensions: perspective-taking, fantasy scale, empathy concern, and personal distress.

Cognitive empathy is the ability to understand another person's thoughts and feelings through intellectual reasoning and inference. It includes perspective-taking, which refers to looking at a situation from other persons' points of view. Cognitive empathy does not require an individual to feel the other person's feelings; it refers to understanding others without sharing the emotional experience (Davis, 1983; Decety & Jackson, 2004).

Affective empathy, on the other hand, involves sharing of emotional experience. It requires the individual to feel what the other person is feeling. In clinical settings, effective empathy is seen as an important dimension, as it creates therapeutic warmth and enhances the quality of connection between the therapist and the client.

Despite the usefulness of these two dimensions, there are limitations to them. Chrysikiu and Thompson (2016) analysed the two factors and found that they were not a proper fit, suggesting that there are other subscales that need to be addressed apart from these two factors. The study suggested doing careful interpretation of findings and not relying on just one scale.

Furthermore, this distinction between cognitive and affective empathy has important implications in designing interventions. If an individual engages in understanding the other person's perspective, it mainly increases cognitive empathy; but if the person indulges in feeling what the other person feels, it increases affective empathy. Now, as story writing includes cognitive empathy while building an understanding of the characters' thoughts and experiences and uses affective empathy in emotionally connecting with the characters, it becomes a powerful tool in intervention.

2.2.2 Perspective-Taking

Perspective-taking is considered one of the crucial parts of empathy, mainly cognitive empathy. It is understanding another person from their point of view. Researchers have shown that individuals with better perspective-taking are more likely to communicate effectively in a relationship, show less prejudice and be actively involved in helping others (Devis, 1983; Batson et al., 1997). In research related to empathy, perspective-taking is measured through perspective-taking subscales such as the Interpersonal Reactivity Index. It is a self-reporting measure which tries to understand how individuals consider other persons' thoughts and perspectives in everyday situations.

The research by Batson et al. (1997) demonstrated that individuals engage in perspective-taking for someone from a stigmatised group; they not only develop a positive attitude towards that person but also towards the whole group they belong to. This provides an important suggestion that the perspective taken can have broader effects as it helps in reducing prejudice and enhancing empathy

on a larger scale. However, because these studies were done in a controlled laboratory setting with short, one-time activities, it limits the findings and lacks evidence if the positive effect can last for a longer time. There are a limited number of studies that examined the long-term maintenance of perspective-taking and empathy, which also includes interventions for story writing.

Critically, research has also been questioning whether instructive perspective-taking can produce genuine empathy. Even under the same conditions, this may create an overlap between the self and the other person, which becomes less authentic. Hodges and Wegner (1997) provide an important distinction between spontaneous perspective-taking and controlled perspective-taking. It suggests that only spontaneous perspective-taking can lead to real empathy and concern. This suggestion is very important for empathy interventions, such as in story-writing tasks where participants are not forced but they naturally imagine the characters' thoughts and feelings. Therefore, the empathetic results tend to be more genuine and long-lasting.

2.2.3 Emotional resonance

Emotional resonance refers to the emotional aspects of empathy, how an individual feels other persons' emotions. This is an automatic and natural process that flows without any deliberate efforts (Decety & Jackson 2004). Neuroscience research gives support to this idea; it is found that when an individual sees another person in pain, some similar brain areas get activated as they themselves might experience pain. This can be interpreted as that humans may be biologically wired to emotional connections with others (Singer et al., 2004).

However, emotional resonance cannot be understood as empathy as a whole. Researching true empathy not only involves sharing and understanding other persons' feelings but also understanding the self-other distinction. Healthy empathy, according to research, is feeling other

persons' emotions while maintaining healthy boundaries. If this personal boundary is lacking, it may lead to personal distress more than empathy, which may even lead to avoidance (Eisenberg, 2000). This distinction becomes, furthermore, important in clinical and therapeutic settings. The working professionals in these fields absorbing the emotional content of the client may experience burnout or compassion fatigue (Figley, 2002). Story writing can be a solution to this problem as it provides a safe emotional distance. People can express their emotions and feelings through fictional characters instead of exposing them directly, which prevents it from becoming emotionally overwhelming.

2.3 Theoretical framework

The present study is based around four major theoretical frameworks which collectively explain how story writing, specifically collaborative story writing, plays a role in enhancing empathy. These frameworks are examined in detail based on their core proposition, empirical support and limitations.

2.3.1 Narrative transportation theory

Narrative transportation theory, which was developed by Green and Brock (2000), serves as a core theoretical foundation for the present study. The theory proposes that when an individual engages in a narrative, they get mentally and emotionally transported into it. The experimental demonstration presented that the higher the level of transportation of the individual into the narrative, the stronger was the emotional engagement with the characters of the story. This makes narrative transportation a strong mechanism through which story engagement can lead to a measurable increase in empathy.

One of the important aspects of narrative transportation theory is that the framework is not restricted to passive story consumption. As proposed by the present study, the active creation of the story writing will engage narrative transportation more deeply. Because the participants will engage in building the internal world, thoughts and experiences of their characters. Johnson (2012) found that individuals who were more narratively transported to the stories showed greater empathy and prosocial interaction as compared to the individuals who were less transported. This provides strong support for the idea that transportation plays a mediating role in the relationship between narrative engagement and empathy. Therefore, the current study focuses on measuring the role of narrative transportation in the change of empathy score after story-writing intervention.

Despite the strong use of the theory, there are certain limitations to it. Most of the research around this theory has focused on consumption of story through reading or watching. Therefore, there is still a question whether creating stories can lead to the same level of immersion or maybe a stronger level of change. Another major issue is that some people are naturally drawn towards the story and get more emotionally involved as compared to others. This suggests that the experience of being transported into a story is not the same for everyone. This provides a scope for study and research, such as the present one which focused on testing transportation in a form of active writing intervention.

2.3.2 Social learning theory

Bandura's (1977) social learning theory proposes that an individual learns attitudes, behaviours and emotional responses by observing and interacting with others. This theory directly connects with collaborative story writing, as the participants engage in constant interaction, listening to each other's ideas and observing their emotional responses. In this process they get exposed to the

perspectives and empathetic responses which are different from their own, which they may later model and internalise.

Later, Bandura (1986) expanded this theory and explained that individuals don't simply copy what they observe but actively think about it, interpret it and shape the information based on their personal experiences and thoughts. This in context to collaborative story writing refers to the participants not just copying each other's responses but actively engaging in understanding each other's point of view, combining the ideas and creating a shared meaning while constructing the story.

Along with the major implications of this theory, there are certain limitations to it. One of which is that it was initially designed to explain how individuals learn visual behaviour by observing others; it didn't focus on explaining the deeper emotional experiences such as empathy. Due to this reason, other theoretical support is needed while using this theory to explain empathetic development through stories. Another limitation to the theory is that it does not provide a clear explanation about the learning difference between individual story creation and group story creation. In a collaborative story-writing setup, the social interaction may have a different influence on empathy, but the theory does not predict those differences clearly. This important research gap allows the explorer to compare the development of empathy in different storytelling conditions, as aimed by the present study.

2.3.3 The expressive writing paradigm

The expressive writing paradigm developed by Pennebaker and Beall (1986), which was later elaborated by Pennebaker (1997), provides the third theoretical base for the present study. This research found that when individuals engage in writing about emotionally important and personal

experiences, even if it is for a short duration, they are significantly improving their psychological and physical wellbeing.

The main idea of this theory is that people often hold back their internal emotions and experiences. As writing requires a lot of mental and emotional work, it provides an individual a space where they can express themselves while feeling safe. This results in helping people process their difficult thoughts and emotions and understand themselves better, which makes them feel psychologically healthier.

This theory becomes significant for the current study as story writing is also seen as emotionally expressive writing even if the stories are fictional. Research suggests that the benefits of expressive writing are not limited to the expression of one's own life, but even the fictional stories can help an individual process their emotions (Becky & Wilhelm, 2005). The Pennybacker (1997) framework also suggests that in the collaborative setting these effects can be even stronger, as creating together provides a shared and safer emotional space; it makes people feel comfortable expressing their feelings through the characters in the story.

However, the expressive writing paradigm has been criticised for its effect sizes across different populations and conditions. It implies that there is an individual difference in how people process emotion and relate to it. This provides major importance in the present study as it collects a sample of college students who may differ largely in how they share their feelings or express their emotions or how easily they engage with emotional writing. This may result in participants responding differently to story writing.

2.3.4 Social constructivist theory

The fourth theoretical framework grounding the present study is the social constructivist theory by Vygotsky (1978). According to Vygotsky, complex psychological functioning, including reasoning, emotional understanding and perspective-taking, develops through social interaction and shared meaning-making. In this theory language in storytelling plays an important role as it help individuals discuss their experience and create meaning. This also aligns with the collaborative storytelling condition of the present study.

Applying the theory to the current study suggests that engaging together to create a story helps develop empathy as the participants discuss characters and their feelings and respond to each other's ideas. When the participants engage in this, they get an understanding of different perspectives and emotions. These are important parts of empathy. As a whole, the theory suggests that there is more effective development of empathy when people imagine and create together.

Using the theory in the current context has certain limitations. One of which is that there is limited research testing Vygotsky's idea on improving empathy. As most of the studies using the theory focus on problem-solving and thinking skills rather than empathetic development. Another limitation is a conflicting idea that group story creation improves empathy through social interaction and that the emotional connection with characters is stronger when individuals are involved in a story. Overall, it suggests that when an individual engages in story writing alone, they connect with the characters more deeply, whereas in group storytelling, the ideas are shared among different people; this might significantly reduce the deeper personal involvement.

2.4 Narrative transportation and character identification

Two main psychological processes identified by research that are important for empathy development are narrative transportation and character identification. These are mostly connected but are different ideas. Both these ideas are important parts of the present study.

Transportation refers to when an individual gets deeply immersed in a story. According to Green and Brock (2000), as an individual gets emotionally drawn to the story, they get temporarily less aware of the real world around them. Their research has identified that when people get strongly transported to the story, they become highly emotionally connected with the characters and understand the perspective of the character. They are also prone to adopt the ideas and beliefs present in the story. Other research findings show that people who show more transportation into the story have better understanding of other persons' emotions and points of view and develop helping intentions. Because of this research, narrative transportation has emerged as a mechanism that links story engagement with empathy increase (Johnson, 2012). However, most of the previous studies are focused on story reading rather than creating; therefore, the present study aims to explore this gap.

Character identification refers to the experience of how strongly an individual connects and relates themselves with the characters of the story. They temporarily adopt the emotions and perspectives of the character as their own (Cohen, 2001). Findings show that a strong identification with a character lead to influencing individuals' emotions and attitude. This becomes more powerful in the case of story writing as the participants are involved in creating that character rather than reading about it. Due to this active involvement, the writers get deeply connected with the characters that they create.

These ideas raise a question of whether narrative transportation and character identification affect individual and collaborative story writing differently, as in individual story writing the person has the control of all the characters and ideas and builds the story on their own without a discussion with others. Whereas in collaborative story writing, individuals share their ideas and perspectives related to the stories and characters and build them with shared meaning. The current study therefore focuses on identifying this difference.

2.5 Empathy intervention

Researchers have found that empathy can be improved over time and is very important in building relationships and mental health. This is the reason many researchers have worked on identifying different methods and interventions for the development of empathy. This section focused on the three main categories of empathy intervention: perspective-taking and role-play, psychoeducation approaches and creative art-based methods. It will also focus on examining these interventions on their strengths and limitations and connecting to the present study.

2.5.1 Perspective-taking and role-play intervention

Out of all the interventions, perspective-taking exercise is one of the commonly used methods for enhancing empathy. These interventions mainly focused on cognitive empathy. The activities involve individuals putting themselves in the place of others, like a person from a different background. Even brief activities like these help people be more understanding and less judgemental, especially towards misunderstood groups in society (Boston et al., 1997). While imagination of others' perspectives is helpful, role play makes it more advanced by engaging people to act out other persons' experiences. According to studies, active involvement in role-plays

leads to much better understanding and stronger empathy compared to mere imagination. It also shows in the participants' return reflections, which are more visible and measurable.

However, there are limitations. A systematic review of empathy intervention specifically for physicians found that most of the studies related to empathy training have weak research methods. It fails to check whether the effects were long-lasting or not; this implies that even though empathy has been improved, there are questions for its long-term presence (Batt-Rawden et al., 2013). Moreover, a large pre-registered series of five online studies with a large group of participants found that the short activities for empathy mostly fail to increase empathy and even reduce it sometimes (Bjornstad et al., 2025). These findings suggest that only cognitive empathy is not enough for the development of empathy; an individual needs to be emotionally involved, or else the methods won't prove effective.

2.5.2 Psychoeducational approaches

A psychoeducational programme provides basic knowledge about the topic. In the case of empathy, people are thought about basic understanding of empathy, why it is important and practice of certain skills, all in a constructed way. Psychoeducational programmes are majorly used in the fields of counselling, medicine and social work. Researchers suggest that these programmes work more efficiently when the theoretical teaching is combined with practical activities (Paulus & Meinken, 2022). However, a major limitation in this approach is that it primarily focuses on intellectual understanding. Through this approach, individuals get a theoretical understanding of empathy but might fail in a deeper experience and truly feeling it. Additionally, researchers argue that empathy cannot be developed without genuine motivation to understand others. One should genuinely have the desire to understand people and not just believe that they should understand

(Zaki, 2019). Also, there is limited study evidence to prove that empathy sustains even after these training periods are over (Batt-Rawden et al., 2013). Therefore, just teaching might not be a solution for a goal of long-lasting empathy.

2.5.3 Creative arts-based intervention

Art-based intervention activities such as drama therapy, participatory art programmes and psychodrama. These activities involve teaching empathy through emotions and imagination. Empathy is identified as a core therapeutic factor in drama therapy; the activities help participants explore other persons' perspectives from us, saving emotional distance without feeling overwhelmed (Orkibi & Feniger-Schaal, 2019). There are even findings for drama therapy related to children and young people (Murray et al., 2023).

Although there are some motivating findings, there are methodological flaws. The study, including drama therapy with children and young people, is comparatively smaller in scale and lacks proper control groups and follow-ups (Murray et al., 2023).

2.6 Research gap

The research discussion provides major insights and knowledge about empathy, storytelling and narratives. However, there are certain unexplored areas and gaps that are explored in the present study.

One of the major gaps identified from the studies is that the major focus has been on story consumption more than creating it themselves. Story writing differs from consuming the prewritten aspects of the story; it provides the writer space to imagine the characters' thoughts and feelings and create their own world. Although prior studies suggest story writing as an intervention, there

are very limited controlled environmental studies on this aspect; therefore, the current study aims to explore this effect of story writing activities on the enhancement of empathy.

Another important research gap identified from the studies is that there are very few studies comparing individual story writing and collaborative story writing to examine the effects of empathy. According to theories such as social constructivist theory and social learning theory, collaborative story creation may lead to higher empathetic development as participants engage in sharing ideas and responding to each other's emotions and discuss the different perspectives of the characters among themselves. This social interaction may lead to higher empathetic expression as compared to individual writing. However, there is limited research actively testing this; therefore, the present study aims to fill this gap and compare the increase in empathetic level between individuals and people engaged in collaborative story writing.

The third important research gap is related to narrative transportation and emotions experienced during story writing. Although narrative transportation theory suggests a deeper empathetic increase through being deeply emerged in the story, there is limited research testing this directly in the process of story writing intervention. There is a gap in understanding whether story writing leads to narrative transportation and if this transportation helps in improving empathy. Similarly, less research examines the emotional effect on the empathy level. Therefore, the current study aims to understand this effect of emotions and moods on empathy and aims to explore narrative transportation in relation to story writing.

Chapter 3

Methodology

Research methodology is defined as the theory of how inquiry should proceed, encompassing the fundamental assumptions, principles, and procedures required to produce knowledge (Chowdhury, 2019). It represents a systematic and scientific means to solve a research problem, detailing the logic behind the various steps taken during the research process (Padayachee, 2022).

After the review of literature, this section talks about the methodological framework employed to investigate the efficiency of collaborative story writing as an intervention for enhancing empathy. Dealing with research design, participants selection, data collection, instruments and analytical procedure. In this study a mixed-method approach was used. For the baseline data on empathy, social desirability and affect, along with the change in empathy level, transportation and identification with characters, quantitative methodology was used, and finally, to identify the reasons and measures that must have led to an increase in the empathy level, qualitative methodology was used. This mixed-method approach provides a comprehensive understanding of the interventions' impact while integrating this that article analysis and scores within in-depth qualitative data, exploring the areas through which collaborative story writing can lead to empathetic development.

3.1 Research Design

Based on our understanding of research designs and methodology in psychology and the requirements of the study, a mixed-method approach was considered suitable for the research. A mixed-method approach is a combination of quantitative and qualitative methods that provides a more comprehensive understanding of the research problem. This approach integrates the quantitative measures of empathy, social desirability and affect along with the measure of transportation and identification with character with the qualitative enquiries into the underlining

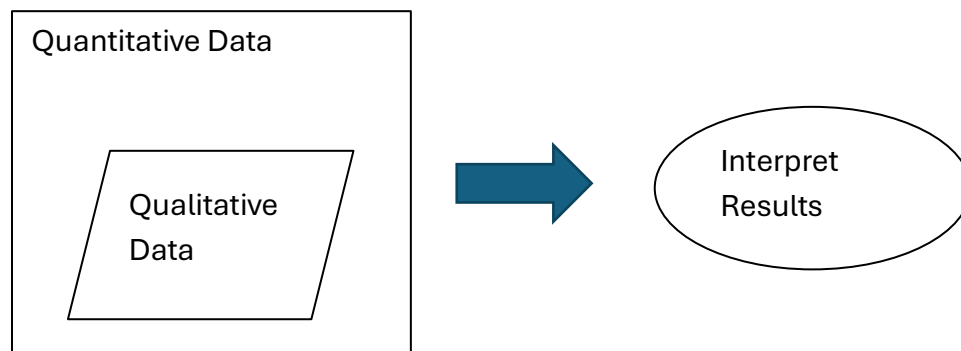
factors of empathetic development and true collaborative story writing, thus providing a comprehensive framework for investigating this phenomenon.

As there are different types of mixed-method approaches, the current study used two of them: concurrent design and explanatory sequential design.

3.1.1 Concurrent Design

In the concurrent design, both types of data, quantitative and qualitative, are collected at the same time. Both these data are analysed separately and then merged for the final interpretation. This design was used as it helps in comparing and validating the findings from both methods and gives a more comprehensive understanding of the research problem.

Fig. No.3.1

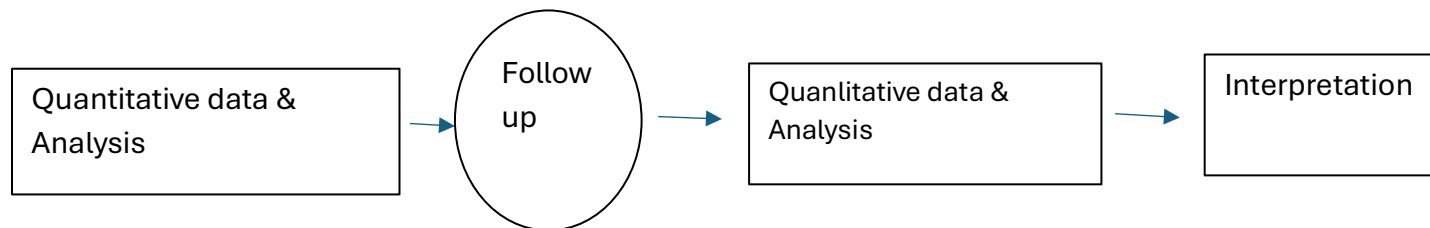


3.1.2 Explanatory Design

In the study explanatory sequential design is also used. In this design the quantitative data is collected first and then the qualitative data is collected. The direction is from quantitative data to

qualitative data, these qualitative data help in explaining the results from the quantitative findings and connect the results of both the phases.

Fig. No.3.2



For the quantitative part of the research, a quasi-experimental approach was adopted, utilising both pre- and post-intervention assessments to measure changes in empathy level. This was to have a clear picture about the effect of intervention by measuring the change in empathy level post-intervention. A within-group design to study the difference in the two phases of the study and a between-group design to study the results between the individual group and the associative story-writing group.

These research designs were used as they provide a more comprehensive understanding of the impact of story writing on empathy among college students. A major reason for the use of this method is that empathy and narrative transportation are complex phenomena that cannot be understood by quantitative measures alone. While it is possible to record the effect of various factors using a quantitative approach, other in-depth factors require qualitative inquiry.

3.2 Research Plan

To effectively examine the intricacy of story writing in enhancing empathy, a well-structured research plan was developed. Based on the aims and objectives of the study, a mixed-method approach was adopted to assess the quantitative and qualitative data and provide a comprehensive

understanding of the impact. For accomplishing objectives 1, 2, 3 and 4, a quantitative analysis was used, and a qualitative analysis was done to achieve objective 5. As the research plan flows with different phases in the study, it can also be represented using the following chart.

Before having the intervention, it was necessary to establish a baseline for the empathy level and other factors such as social desirability and positive and negative affect that could play a role in empathy change. Therefore, in the first phase of the study, all the participants were administered a baseline data collection on the empathy level IRI questionnaire, social desirability set 5 and positive and negative affect scale. This data was utilised to assess the effects of social desirability and the effect of mood on empathy. After the baseline assessment a gap of one week was given to avoid any influence of the pre-test for the empathy scale and a better use of the intervention.

The second phase of the study included the intervention and the post-test. In this phase the participants were divided into two groups, Group A and Group B, to study the difference between individuals' story writing and group story writing to investigate the 4th objective of the study.

Group A (individual story writing):

The participants from this group received a prompt based on which they were asked to build a story individually. This condition was designed to examine the effect of individual narrative engagement on empathy. Following the activity, they were administered the empathy scale, transportation and identification with character questionnaire.

Group B (collective story writing):

The participants in the group were further subdivided into a group of five or eight. They received the similar prompts but were instructed to build a story collectively after discussing among

themselves. This condition aimed to assess the influence of collective narrative construction and social interaction on empathy. They were then individually assessed on the empathy scale, transportation and identification with character questionnaire. A comparison of the baseline scores and post-intervention course was planned.

Furthermore, the qualitative assessment provided strong support to these quantitative data. As mentioned, for the qualitative aspect of the study data set of 18 participants were used. The participants constructed a story based on the given prompts after collective discussion among their subgroups. They were then interviewed in a semi-structured manner. The interview included behavioural and reflective questions; these questions aimed at exploring the participants' experience and thought process during the story-writing activity. A well-structured thematic coded analysis was done on these interviews and stories to reflect on factors that contributed to change in empathy level.

3.3 Tools

To assess the impact of storytelling on empathy and related psychological constructs, a combination of standardised self-report measures was employed at different stages of the study.

3.3.1 Interpersonal Reactivity Index (IRI)

The Interpersonal Reactivity Index (IRI) is a self-reporting questionnaire that measures different dimensions of empathy. It was selected due to this multidimensional approach, as it allows a comprehensive assessment of both cognitive and affective aspects of empathy. It consists of four subscales: perspective-taking, fantasy, empathic concern, and personal distress, each capturing a different dimension of empathic experience. It was used in both the stages (pre-test and post-test) to measure participants' levels of empathy. The scale measures emotional responses toward others.

The scale has a total of 28 items, with 7 for each subject scale. It contains statements enquiring about the thoughts and feelings in various situations, and the participant answers by choosing between the scale of ‘does not describe me well’ and ‘describe very well’.

3.3.2 Positive and Negative Affect Schedule (PANAS)

The Positive and Negative Affect Schedule (PANAS) is also a self-reporting psychological tool that is used to measure emotions. It was administered during the first phase of the research (pre-test) to assess the participants' emotional state and mood in the past week; the scale was used to determine whether their emotional state has an influence on the empathy level.

The scale contains a total of 20 items with two independent dimensions: positive affect (e.g., enthusiasm, alertness) and negative affect (e.g., distress, irritability). Each dimension has 7 items. The participants' responses were based on the emotional state in the past week, between ‘very slightly or not at all’ and ‘extremely’.

3.3.3 Socially Desirable Response Set-5 (SDRS-5)

The Socially Desirable Response Set-5 (SDRS-5) is a shortened version of a social desirability measurement tool. It is a self-reporting tool used to detect response biases. It was used in the first phase of the research (pre-test) to control for response bias. It was included to identify the tendency of participants to present themselves in a socially favourable manner, which could influence the responses reported for empathy and affect. The scale consists of five statements that assess socially desirable responding. The participants responded based on the relatability to the statement, helping ensure the validity and reliability of the collected data.

3.3.4 Transportation Scale (Green & Brock)

The Transportation Scale is a self-reporting tool to measure narrative transportation. was

administered during the second phase of the study (post-test stage) after the storytelling intervention. It was used to measure the degree to which participants felt involved in the story and cognitively and emotionally immersed in the narrative. As the transportation mainly influenced emotional outcomes, it was essential to understand how deeply participants engaged with the story. The scale includes a total of 11 items: emotional (1 item), cognitive (6 items) and imaginative (4 items). The participants must choose an option from the Likert scale from 'strongly agree' to 'strongly disagree'.

3.3.5 Identification with Character Scale

The Identification with Character Scale is a self-reporting tool used to measure the strength of identification with the characters in the story. It was used in the post-test stage after the intervention. It was included to examine the psychological process through which storytelling may enhance empathy. The scale measures the degree to which individuals feel merged with the character. It consists of 17 items, statements that capture both cognitive and affective aspects of identification.

Moreover, for the qualitative part of the research, a set of self-tailored questionnaires was used to identify the emotion engagement and other factors that might influence the empathy level (refer to Appendix G). Prompts for different events and scenarios were used as a tool for the participants to construct their stories (refer to Appendix F).

3.4 Research Participants

The present study recruited participants from college and university. Record their name/initial, age, educational qualification, and area of their study. their participation in any of the welfare

organisations or NGOs. These demographics were important to record to see if they had any effect on the results and to form groups with homogeneous participants.

3.4.1 Inclusion criteria:

The participants were screened based on the requirements of the study. The inclusion criteria were college or university students between the ages of 18 and 25. This age group was specifically selected because of its critical developmental period categorised by emotional, psychological and cognitive changes, which makes it relevant to the variables under investigation for the study. Included both males and females from different fields of study to control the effect of their educational field on the result.

3.4.2 Exclusion Criteria

Exclusion criteria were anyone who is currently a member of any social service program or NGOs, as they might naturally be more sensitive towards others and the effect of intervention may be reduced. Also, any participant with a mental health condition or from the special population was not included in the current study.

3.4.3 Sampling

The sampling technique used for the collection of data was convenience sampling. It is a non-probability sampling technique that selects participants for the sample depending on how easily they are accessible to the researcher.

For the current study, the initial recruitment of participants was 80, screening them through the inclusion and exclusion criteria. The number was maintained for the first phase of the research,

acting as the baseline. The empathy scale, social desirability scale and positive and negative affect scale were administered to all these 80 participants. However, due to attrition during the second phase of the study, the sample size was reduced to 56 participants. These participants engaged in the story-writing intervention and were administered the empathy scale, transportation and identification with character. Therefore, only those participants who completed both the phases of the study were included for the comparative quantitative analysis. For the qualitative component of the research a separate sample of 15 participants was collected, which was utilised for a comprehensive understanding of the research variables and implementing the findings of the quantitative analysis.

3.5 Ethical Considerations

The reposting of data and continuous participation over time, along with shared thoughts in a group, might cause a little discomfort to the participants. Therefore, all participants were fully informed about the purpose, procedures, and their rights before participation. Informed consent was obtained from all to ensure their voluntary participation. They were provided with the researchers' contact details, number and email address to ask for any queries or concerns. The participation was entirely voluntary, and they were allowed to withdraw from the activities at any stage. They were completely free to deny tasks that may feel uncomfortable. For the qualitative component, participants were informed about the use of audio recording, and prior consent was obtained. All strict measures were taken to keep the data confidential and anonymous. It was ensured that the data obtained were only accessible by the research and used only for the research purposes.

3.6 Data Analysis

For each objective the following statistical analysis was performed. This data was analysed using IBM SPSS.

Objective 1: Correlation between the different sub dimensions of the empathy, paired sample t test to study the difference between the two phases and the qualitative thematic analysis.

Objective 2: correlational analysis, descriptive statistics

Objective 3: Between group analysis, qualitative analysis

Objective 4: correlational analysis, qualitative thematic analysis

Objective 5: qualitative thematic analysis

Chapter 4

Results

4.1 Results for Quantitative Analysis Phase 1

Table 4.1

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
conditions of participation	80	1.00	2.00	1.5000	.50315
Positive mood_time1	80	14.00	50.00	32.6000	8.04984
Negative mood_time1	80	10.00	47.00	29.2000	9.04196
Perspective taking_time1	80	7.00	26.00	19.3125	3.95095
Empathy_concer_time1	80	8.00	25.00	18.5750	3.67948
Personal distress_time1	80	8.00	24.00	17.1500	3.81328
Fantasy scale_T1	80	9.00	28.00	17.1500	4.34319
IRI total	80	45.00	101.00	72.1625	11.54786
Social Desirability	80	12.00	23.00	17.3625	2.41432

PTT2	58	10.00	26.00	18.1724	3.64734
ECT2	58	12.00	28.00	19.6724	4.10984
PDT2	58	3.00	22.00	15.7931	3.64551
FST2	58	6.00	28.00	17.3796	5.22755
Identification with character	58	36.00	80.00	62.1552	8.33046
Transportation	58	28.00	45.00	36.6897	3.89425
Valid N (listwise)	58				

In the above table the descriptive statistics for all the variables in the study were computed. In the first phase of data the descriptive is calculated for the sample of 80 participants. The mean score for positive and negative mode is ($M = 32.60$, $SD = 8.05$) and ($M = 29.20$, $SD = 9.04$) respectfully. For the empathy scale (IRI total) the mean score is 72.16 ($SD = 11.55$) and the social desirability score had a mean of $M = 17.36$, ($SD = 2.41$).

For the post test of the study the descriptive is calculated for a total of 58 participants. The mean score for identification with character and transportation score is $M = 62.16$, $SD = 8.33$ and $M = 36.69$, $SD = 3.89$ respectfully.

Table 4.2 Correlation

	Positive mood T1	Negative mood T1	IRI (total)	SD	PT T1	EC T1	PD T1	FS T1
Positive mood (T1)	1							
Negative mood (T1)	-.036	1						
IRI total	.124	.120	1					
SD	-.002	-.168	.400**	1				
PT (T1)	.209	-.099	.762**	.421**	1			
EC (T1)	-.014	.022	.774**	.415**	.486**	1		
PD (T1)	-.075	.226*	.662**	.171	.316**	.422**	1	

FS (T1)	.217	.193	.728**	.178	.429**	.399**	.237*	1
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*, Correlation is significant at the 0.05 level (2-tailed).

**, Correlation is significant at the 0.01 level (2-tailed).

The above table presents correlational analysis between the sub dimensions of empathy scale positive and negative mood affect and social desirability. The correlation between negative mode and personal distress scale was found positively correlated ($r = 0.226$, $p < 0.05$), indicating that higher level of negative mood leads to more personal distress. There was a loop positive correlation between social desirability and empathy ($r = 0.400$, $p < 0.01$), indicating that individuals wanting to present themselves positively reported higher empathy. Also, there was significant correlation between the sub dimensions of empathy, indicating that a rise in empathy in one dimension leads to higher empathy in other dimensions.

Table 4.3 correlation in phase 2

	PT T2	EC T2	PD T2	FS T2	Identification with character	Transportation
PT T2	1					
EC T2	.660**	1				
PD T2	.004	.072	1			
FS T2	.370**	.515**		1		
Identification with character	.241	.348**	.042	.428**	1	
Transportation	.201	.188	-.057	.219	.484**	1

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

**, Correlation is significant at the 0.01 level (2-tailed).

The above table presents the correlation analysis between the sub dimensions of empathy, identification with character scale, and transportation scale in post-test. Identification with character scores show positive correlation with empathy concern ($r = 0.348$, $p < 0.01$) and Fantasy

scale ($r = 0.428$, $p < 0.01$) Which indicates that participants identifying more with the characters experience greater emotional empathy and higher imaginative engagement. Further, there was a significant correlation between transportation and identification with character ($r = 0.484$, $p < 0.01$)

Table 4.4 correlation table distinguishing individual and group condition in phase 2

		PT T2	EC T2	PD T2	FS T2	Identification with character	Transportation
Individual	PT T2	1					
	EC T2	.666**	1				
	PD T2	-.148	-.013	1			
	FS T2	.238	.381*	.040	1		
	Identification with character	.124	.215	.017	.004	1	
	Transportation	.013	.099	.101	.149	.414*	1
Group	PT T2	1					
	EC T2	.662**	1				
	PD T2	.259	.220	1			
	FS T2	.458*	.631**	.230	1		
	Identification with character	.287	.498**	.143	.679**	1	
	Transportation	.355	.293	-.305	.250	.471**	1

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

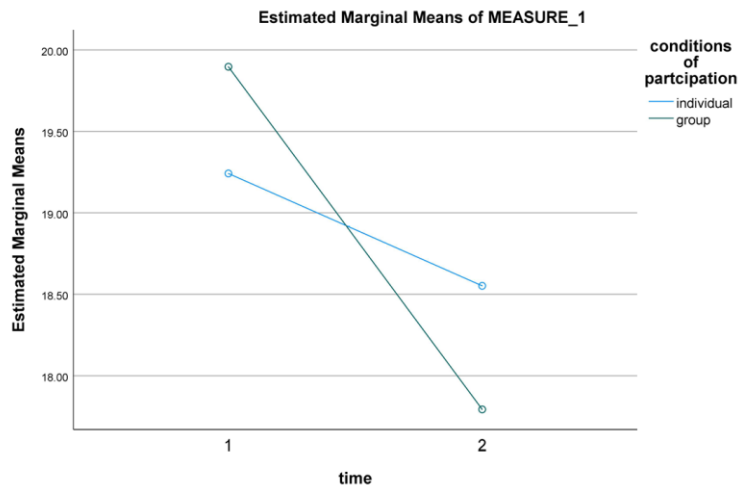
**. Correlation is significant at the 0.01 level (2-tailed).

In The above table, the correlation between sub dimensions of empathy identification with character and transportation was analysed comparing it individuals and Group. The correlation between perspective taking and empathy scale for both individual and group show high positive correlation, The relation is Significant ($r > 0.662$, $p < 0.01$). In Group, Identification with character has strong positive correlation with empathy concern and fantasy scale. Also, there is a strong

correlation between transportation and identification. whereas for individuals the correlation exists but are weaker as compared to group.

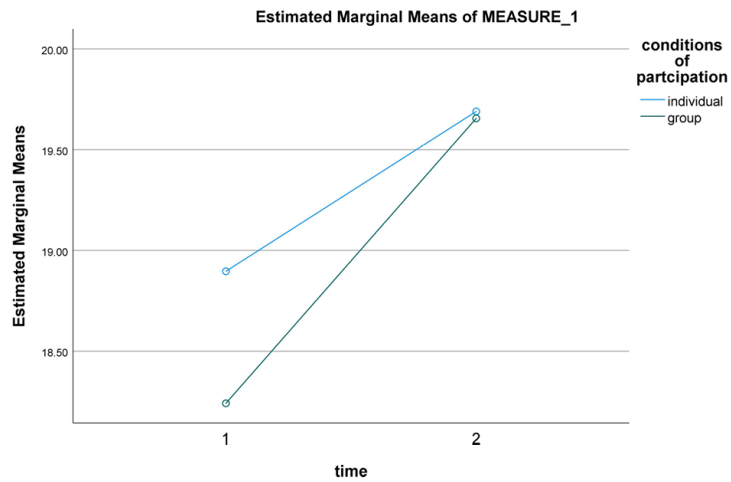
Graphs for between t tests

Graph 4.1



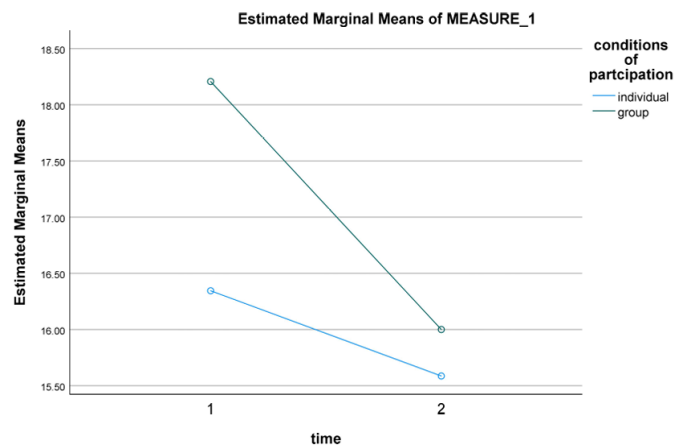
The above graph shows change in perspective taking between individuals and group from T1 to T2. Perspective taking in individuals slightly decrease from T1 to T2 whereas for group it shows a sharp decrease. This indicates that perspective taking reduced in T2, specially for group condition.

Graph 4.2



The above graph represents change in empathy concern between the two conditions of participation from T1 to T2. Empathy concern for both the conditions increased from T1 to T2, but there is a steeper increase in group condition. Indicating that the group condition benefits more strongly for empathy concern.

Graph 4.3



The above graph represents change in Personal distress between the two conditions of participation from T1 to T2. Personal distress for both the conditions shows a decline from T1 to T2, And the

[illegible]

Identification with character	individual	65.17	6.563	1.675	.201	2.937	56	.005	6.03448	2.05455	1.9187	10.1502
	group	59.13	8.907	1.675	.201	2.937	51.48	.005	6.03448	2.05455	1.9107	10.1582

An independent sample t test was conducted to compare the identification with character for individual and group condition. there were significant differences ($t(56) = 2.94, p = .005$) in this course with mean score for individual ($M = 65.17, SD = 6.56$) was higher than group condition ($M = 59.13, SD = 8.91$). The magnitude of the difference in the mean (mean difference = 6.03, 95% CI: 1.92 to 10.15). was significant. Indicating that Identification with character was higher in individuals, people writing stories individually connected more with the characters as compared to the people riding in group.

Table 4.6

Regression Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.400 ^a	.160	.149	10.65309

ANOVA^a

Sum of Squares	df	Mean square	F	Sig.
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Regression	1682.795	1	1682.795	14.828	.000 ^b
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a. 10534.888 Dependent Variable: IRI total

b. Predictors: (Constant), Social Desirability

The above table examines whether social desirability predicts empathy (IRI total score) through regression analysis. The independent variable social desirability significantly predicts empathy ($F(1, 56) = 14.83, p < .001$), which indicates that the factor under study has a significant impact on empathy. Moreover, the $R^2 = .16$ depicts that the model explains 16% of the variance in empathy. Additionally, the correlation coefficients ($R = .40$) suggest a moderate positive relationship between social desirability and empathy.

4.2 Results for qualitative analysis in comparison between individual and group story writing.

After the quantitative analysis the qualitative results finding has provided a more detailed insight in comparing individual and group story writing conditions in developing empathy. The findings show 12 empathy processes that differs between individual stories and group stories, which are described below in detail.

Phase 1: Comparative Empathy Processes in individual and group

Individual Stories	Empathy Process	Group Stories
Limited, often single-perspective	Perspective-Taking	Multi-perspective
Strong but personalized	Emotional Engagement	Gradual
Fixed identification	Role Identification	Fluid shifting across roles
Direct, dominant influence	Use of Personal Experience	Present but moderated by others'
Focused	Emotional Range	Diverse emotions
Implicit, less debated	Moral Reasoning	Explicit discussion & conflict
Practical, direct solutions	Problem-Solving	Multiple possible outcomes
Limited to immediate situation	Social Awareness	Broader awareness
Present but internally processed	Reflexivity	Triggered through discussion
Recognized but not deeply explored	Communication Awareness	Strong emphasis on communication
Mostly affective empathy	Empathy Type	Cognitive, affective, reflective empathy
Linear, straightforward	Narrative Complexity	Layered, negotiated, dynamic

4.2.1 Perspective taking

In individual conditions, perspective-taking was very limited, mostly to one single perspective of either the self or the main character. Where in the group stories participants had multiple perspectives, from the point of view of friends, parents and society simultaneously. Therefore, it is suggested that engaging in group activity enhances the cognitive complexity of empathy.

4.2.2 Emotional Engagement

In individual writing emotional engagement was found very strong but, at the same time, was very personalised and subjective. On the other hand, in the group condition, there was a gradual shift from less engagement to more collectively intensified engagement. Therefore, it can be inferred that emotional engagement in an individual is deep but narrowed, whereas in a group it has a broader emotional spread.

4.2.3 Role Identification

In the context of role identification, it was fixed to one character or between the character and observer in the case of individuals. In a group context, the identification has a fluid shift across rules, which also promotes flexibility in identification with self and others.

4.2.4 Use of personal experience

In individuals there was more autobiographical empathy, referring to a direct use of personal experience that was present dominantly. While in the group there was a socially constructed empathy, personal experiences were present which were continuously moderated with the inputs and discussions with others.

4.2.5 Emotional Range

The findings suggest that a group setting helps in increasing emotional diversity. Diverse emotions such as frustration, empathy, patience and understanding were noticed in the group story. While in individual stories, the emotional range was very focused on sadness, fear or helplessness.

4.2.6 Moral Reasoning

In individual conditions, moral reflection was mainly implicit, and there were fewer conflicts or debates. Whereas in the case of group stories, as the participants engaged in discussion which raised multiple perspectives, the moral reasoning was much more explicit. The participants openly discussed how words should be actions of the character. Group stories activated more ethical reflection on empathy as compared to individual stories.

4.2.7 Problem-solving orientation

As individuals wrote their story alone, the problem-solving approach was more practical and direct, such as talking to the family or asking for help. Whereas group stories were the result of discussion, multiple possible outcomes were debated and provided variability in the solution.

4.2.8 Social Awareness

Individual participants showed awareness in the immediate situation present in the story, whereas the stories in group had a broader awareness. The group stories considered various factors such as age difference, social rules and norms. Therefore, group condition builds more social empathy as compared to individual writing.

4.2.9 Reflexivity

Self-reflexivity is the ability to apply the situation in themes of the story to one's own life and relationships. This theme was present in both the conditions. Where in an individual condition it was processed internally, the reflexivity in the case of a group condition was initiated through discussion and comparison, which led to deeper reflective thinking. This enabled the participants to gain insight not only for the characters but also into their own decisions and behaviour.

4.2.10 Communication Awareness

Communication awareness was another important empathy process present in the stories. In individual stories this awareness was present but was not deeply explored as compared to the group condition. In group conditions there was a very strong emphasis on communication. Participants emphasised the importance of openness and expression and that communication is important for resolving conflict. This links empathy indirectly to interpersonal communication process.

4.2.11 Empathy Type

Another important empathy process that was identified is the type of empathy. Individuals' stories mostly focused on affective empathy, feeling and connecting with the characters. Whereas group stories explored both cognitive and affective empathy along with reflective empathy. The group condition provided a more multi-layered empathy as compared to individuals.

4.2.12 Narrative Complexity

The narrative complexities choose the flow in construction of the stories. In individual conditions, the story is produced in a more linear and straightforward structure, but in group stories, the narrative is more layered and dynamic. The constant discussion and negotiation in the group resulted in this dynamic structure. There is a more complex empathy construction in group stories.

Lastly, it can be inferred that both individual and group writing lead to empathetic engagement, but in individuals the empathy construction is more personalised and effectively focused, whereas for groups it is more in a broader context, including both cognitive and affective empathy.

4.3 Results for qualitative analysis (Phase 2)

The qualitative analysis revealed that empathy development is not a single-layer process; while engaging in story writing, multiple layers have shown up. Empathy development while constructing stories is multi-layered and goes through a dynamic process which involves cognitive, emotional and social components. Multiple themes have emerged during the analysis, highlighting the emotional engagement of the participants along with moral reasoning and perspectives, especially in groups.

Table 4.3.1

Theme	Subthemes
1. Perspective taking built on narrative	Perspective-taking across roles (parent, child, peers), Imagining others' thoughts and feelings, Structuring viewpoints
2. Empathy building through self-projection	Partial identification, fluidity in role identification, Switch between actor and observer roles
3. Collective of meaning making	Exposure to diverse perspectives, Collaborative meaning-making, Idea blending, thinking through others
4. Empathy development through relatability and emotion	Gradual emotional engagement, Personal memory, Feelings of sadness, guilt, helplessness, concern
5. Moral reasoning and conflicting thoughts	Ideal vs real-world conflict, Judgments about fairness, efforts, communication, Debates on right action
6. Empathy building through self-reflexivity and insight	Real-life situational awareness, Self-reflection, Awareness of relationships, decision-making clarity
7. Empathy building through communication awareness	Recognition of communication gaps, importance of expression, Link between empathy and communication identification of silence/avoidance
8. Range of empathy across participants	Emotional vs detached responses, personal experiences, narrative framing

4.3.1 Theme 1: Perspective taking built on narrative

Perspective taking is the ability of understanding a situation from other persons point of view and not just one's own. In context of narratives or story creation it refers to an understanding of the situations and point of views of the character in the story. The participants involved in creating stories first engage with these viewpoints of the character, which is also referred to as cognitive empathy. The participants initially involved in framing the viewpoints of the character before getting emotionally engaged.

examples

- *"I was able to guess what each character might be feeling" (group 4)*
- *"We tried to include what classmates, teachers would feel" (group 3)*
- *"We thought from both parent and child perspective" (group 2)*

The participants were able to think from the perspective of different roles in the story and not just one single character. They were actively imagining different viewpoints. The examples also indicate that cognitive empathy helped the participant structure their perspectives.

4.3.2 Theme 2: Empathy building through self-projection

Self-projection refers to identifying oneself with others, which in this case is identification with the characters of the story. The participants here identified themselves with multiple characters. They simultaneously identified with either two characters or shifted their identification across various characters, this shifting let them to a deeper empathy development.

- *"I can put myself in two characters clearly" (group 1)*
- *"I identified as both child and parent" (group 5)*

Some of the participants played a dual role of seeing the characters as themselves and being the observer and giving it a more analytical point of view. The participants also reported partially identification with the characters and were navigating between self and others point of view. This fluidity enhances the depth of empathetic engagement.

- *“I could see person A as me... but not fully” (group 1)*

4.3.3 Theme 3: Collective of meaning making

Meaning making is an active and ongoing process by which individual makes sense of life events, it is a process of understanding relationships and self to create a sense of purpose. This in the current context happens using narrative. While discussing in the group, individual came across different emotional angles in the story, they shared different viewpoints among themselves which expanded their own understanding as well. The participants discussed among themselves and Co-constructed the stories, through these stories' empathy was also Co constructed Socially. Everyone proposed different ideas which were blended together and no idea was forced.

Participants engaged in a collaborative meaning making rather than individual sets of ideas.

Example

- *“It was a mixture of all ideas... better ideas to go for” (group 1)*
- *“Different people had different experiences... I thought out of the box” (group 2)*

as the participants constructed the story in a group there was collective idea towards the story, they reported that if they would have created narrative individually it would have a completely different perspective.

- *“If alone, story would have been very different” (group 5)*

Individual creations often limit the thoughts and perspectives to one person, while creating narratives in a group setting provides different perspectives and amplifies the results. As in this case the group story writing acts as an amplifier for empathy in social context.

4.3.4 Theme 4: Empathy development through relatability and emotions.

Individuals tend to connect more when they relate to things and people. After the participants understand the viewpoints of the character and get cognitively engaged, they slowly began to experience the emotional responses. As the participants connected more personally with the characters their emotions intensified. They observed various emotions during the writing process, such as helplessness, worry, guilt, concern and sadness.

Example

- *“I feel bad for all of them” (group 1)*

At the starting of the discussion the participants had a more practical approach, but gradually as they engaged in discussion, they were more emotionally engaged with the character and the stories. Many participants were emotionally triggered by their personal memories, and to an extent experienced the group discussion as the reality in play.

- *“At first it was just an activity... then we started connecting” (group 2)*
- *“It got me flashbacks of the past” (group 5)*

This also indicates that emotions don't get triggered automatically with just narratives, but when there is personal relevance involved. This also shows that empathy becomes stronger and deeper when the narratives become personally meaningful.

4.3.5 Theme 5: Moral reasoning and conflicting thoughts

While the participants were building the story and engaging with different point of views of the characters, there were conflict of thoughts about the characters. They were trying to understand and figure out about what was happening and what was morally correct. Constant conflict of what would be the right actions of the character.

- *“Should A resolve or walk away? There was constant debate” (group 1)*

This constant internal conflict and the process of considering multiple sides and consequences, provided a deeper empathetic understanding towards the character.

The participants evening had moral takeaway from the discussion. The discussion also points towards the importance of communication in social context, how members in a group or family should discuss problems or just hide and deal with it by themselves.

- *“Treat people as they treat you” (group 1)*
- *“Should the family disclose or hide?” (group2)*

It also explains how the group condition was essential for the generation of this theme. The moral reasoning emerged due to the exchange of ideas and disagreements between the participants. This is very well explained by Vygotsky's explanation that complex cognitive and moral reasonings are developed in social space. When the participants discussed about the characters walking away

from a communication or weather the character should resolve the conflict, this negotiation of different empathetic grounds helped in deeper moral and empathetic engagement.

4.3.6 Theme 6: Empathy building through self-reflexivity and insight

This theme represents moments when story writing turns more internal than just being observational. The participants started relating and applying the moral understanding and emotions that developed through the characters into their own life and relationships. There is a transition from their imaginative engagement with the characters to a deeper understanding of their self in relation with that character, this represents a reflexive dimension of empathy. Participants start observing their own situations through the lens of the fictional character.

Participants start relating with the themes and situation in the story with their own life process, this can be seen by the response appeared in Group one

- *“Now I think what if this happens in my friend group”*

The participants not just understand the situation of the characters but were also able to unlock their own psychological understanding. The process gave them genuine inside and self-knowledge.

- *“I got clarity about what I should do in such situations” (group1)*

There was a broader reflection of empathetic concern in a generic sense rather than being limited to specific character. That can be identified with the statement in group 2

- *“I didn’t realize this happens in every home”*

Creating the story and the situations for the character provide a safe space for the participants to insert and live their own emotions through them. When participants engage in story writing they

put their thoughts and feelings into the story which help them organise their thoughts. According to Pennebaker's (1997) model of expressive writing when an individual writes and create stories related to their emotions it leads to a very significant event. The brain tries to process the complex feelings into a clearer manner. This reduces confusion, helps in a better understanding of the situation and gaining insight. In the context of the current study the participants did not engage indirectly in writing about their emotions but channelling it through the characters in the story. Therefore, while understanding the emotions and situation of the characters they were also able to understand their own confusions.

4.3.7 Theme 7: Empathy through communication awareness

The theme talks about the importance of communication while practising empathy. The participants frequently identified that there is often a lack of communication in their real life and relationships, this was also indicated in their stories. Empathy is not just about realising but also expressing through communication.

The participants responses very much identify the relationship between communication and empathy and how relationships can be sustained by maintaining this.

- *“With clear communication, things could be better” (group1)*
- *“People just don't discuss anymore” (group1)*

The participants also mention about how lack of communication leads to confusion and creation of problems.

- *“Parents don't share, children feel confused” (group 5)*

The theme here majorly explains that empathy matters the most when it is communicated to others and not just felt inside. Rogers's idea explains that empathy is an active communicative process, and it works efficiently when it is expressed and understood by others. Due to the collaborative writing experience, the participants were able to understand the importance of active expression, as they were themselves involved in expressing ideas and responding to each other. It gives a more specific idea of the role of communication in empathy-based connection.

4.3.1 Theme 8: Range of empathy across participants

The theme explains about a range of empathetic process among the participants. All the participants went through a unique and different process in understanding emotions and empathetic depth. It also explains that the intervention did not have a uniform effect on all the participants, it was also affected by participants individual experiences, the type of story that were formed and the participants level of emotional engagement. As some of the participants where more focused on the practical and constructive part of the storytelling initially and did not have an emotional engagement, as the participant in Group 4 and Group 3.

- *“I was focused on constructing, not emotions” (group 4)*
- *“We made it fun so didn’t connect emotionally” (group 3)*

While on the other hand some of the participants, we’re so emotionally engaged they even felt like crying.

- *“I feel like crying now” (group1)*

Davis (1983) explains in his interpersonal reactivity index that empathy is not expressed in a unitary dimension, but it has distinct dimensions. Individuals express at varying levels and have

individual differences, which were applied in his scales. The present theme very well aligns with these personal differences.

The theme clarifies that there are individual differences in understanding emotions and empathy. Individuals feel empathy based on how they construct the story and how deeply and personally they relate to it. Therefore, it is indicated that if empathy becomes stronger when people share ideas and connect with the characters, it is very much needed that the participants create their own narratives rather than being provided with a fixed prompt or pre-constructed stories. This finding gives a practical implication of how collaborative story writing can be used as an educational and therapeutic tool.

Chapter 5

Discussion

Empathy is very important for building interpersonal relationships, maintaining wellbeing in a community, resolving conflicts and building prosocial behaviours. Therefore, various narrative-based interventions have been studied to develop empathy. The current study focused on examining if collaborative story writing can be an effective tool for the enhancement of empathy. The study also examines the role of narrative transportation, identification with character and affect

on empathy. Different components and factors engaging with empathy development are also studied in the current research.

The major findings for the studies indicate a significant effect of story writing on empathy, especially in a group context. There was a significant effect of affect and social desirability on the level of empathy. The qualitative data indicates that narrative transportation plays a key role for empathy development and that empathy is a multidimensional process. Individual differences, relatability and personal experience play a key role in the level of empathy development. The participants were involved in perspective-taking, which also gradually led to emotional engagement.

Further in the discussion section, all these results will be discussed in detail, linking both the quantitative and qualitative results. The chapter discusses the findings in three sections: first, the quantitative findings; then, qualitative findings for Phase 1; and lastly, the qualitative findings for Phase 2 of the study.

5.1 Quantitative findings

The qualitative findings from phase one show that both individual and collaborative story writing helps in developing empathy. However, the development in both conditions occurred in different ways: while individuals' story writing led to a deeper and more personal involvement, in group story writing it was broader and socially developed.

In individual story writing, participants were majorly connected to one single character and focused on their own experiences. Their experience of empathy was mostly affective and private. The story construction was an indirect narrative around a single perspective.

Differently so for collaborative story writing, participants engaged in multiple perspectives after discussion and had a shared emotional experience. They discussed moral and ethical issues along with the importance of communication in relationships and other social dynamics. The identification with characters is in a very fluid manner with a high level of emotional expression. The empathy for group condition was both cognitive and reflective. The multilayered story creation provided perspectives of different characters with multiple points of view and multiple options for problem-solving and relationship building.

Overall, the findings suggest that for individual story writing, participants engaged in more personalised, meaningful empathy development, whereas in collaborative story writing, the empathy development was multidimensional.

5.1.1 Effect of story writing on empathy

The quantitative findings for empathy score in pre-test and post-test demonstrate that there was a significant increase in empathy from T1 to T2 for both the conditions. This finding aligns with the theoretical assumptions of narrative transportation theory (Green and Brock, 2000), which was also a core foundation for this study. The theory proposes that when an individual is immersed in the story, this depth leads to high emotional engagement and an increase in perspective-taking and empathy. The current findings of the study support this, which indicates that the process of creating a story, more than just reading, leads to narrative transportation, which results in an increase in empathy.

The finding is also very significant, as the previous studies on narrative transportation mostly focused on passive expression of stories (Green and Broke, 2000). Johnson (2012) found that people, when deeply involved in a story, tend to show higher empathy towards others. The present study, with this finding, adds to this, showing that creative story writing can also have a similar effect in increasing empathy, thereby filling a significant research gap.

5.1.2 Narrative transportation and character identification

The correlation results show that individuals who have higher narrative transportation and strong identification with characters also have a higher empathy score at T2. Both the conditions in identification with character were found to have a significantly positive correlation with narrative transportation. These findings aligned with the theoretical discussions presented in the review of literature.

As described by Cohen (2001), character identification leads to temporarily adopting the ideas, emotions and perspectives of the character. In the findings of the present study the character identification for individuals is higher as compared to people who wrote stories in groups. This finding suggests that when the creation of the story depends on a single individual, they are more personally invested in the characters. The finding also supports the theoretical argument from social constructivist theory (Vygotsky, 1978) that group activities help in building shared understanding. However, when an individual is involved in the writing process by themselves, it sometimes leads to a deeper personal and emotional involvement.

5.1.3 Mood and empathy

The quantitative findings indicate that the individuals' moods have a significant impact on their empathy levels. Participants' who were in a more positive mood, scored higher for some aspects of empathy, such as perspective-taking and fantasy. This indicates that individuals with a good mood are better able to engage in the imagination of the stories and fictional characters along with understanding their perspective. The finding aligns with the previous research that suggests that a positive mood leads to helping behaviour (Isen, 1970).

On the other hand, there was a positive correlation between negative mood and personal distress in the empathy scale, indicating that negative feelings such as sadness and irritation may increase personal distress. This finding aligns with the previous research indicating a similar phenomenon (Botson et al., 1997). Therefore, these findings suggest that mood plays an important role in empathy research.

5.1.4 Difference between individual and group story writing on empathy.

The comparative analysis between group and individual story writing in relation to empathy shows that story writing conditions affect different aspects of empathy in different ways.

For empathy concern and fantasy scales, there was a significant increase in score from T1 to T2 in the group condition. This indicates that narrative intervention in the group condition leads to more increase in empathy concern and the ability to imagine fictional situations. Whereas, in case of individual condition, there was limited increase in empathy concern and a significant decrease in the infancy scale at time 2.

In case of perspective-taking and personal distress, there was a significant drop in these scores at Time 2. Indicating that the participants felt less personal discomfort after involving themselves in the story-writing activity.

These findings can be better understood through social learning theory (Bandura, 1977). The theory proposes that individuals learn emotional responses and attitudes by observing and interacting with others. As in the group setting, participants were continuously engaged in sharing responses and discussing among themselves; it led to an increase in empathy and concern.

5.2 Qualitative findings: Phase 1

The qualitative findings from phase one refer to that both individual and collaborative story writing lead to empathy development, but this development in both the conditions have different ways. While in individual story writing the empathy development is deeper and more personal, in collaborative story it is more in a broader sense and socially developed.

The findings refer to individual story writing participants, who were focused on the story more personally and connected to one specific character and were relying only on their own experiences. The narrative of the story created by individuals was mostly direct and centred around one perspective. The empathy experience was mostly affective.

On the other hand, as the group participants engaged in meaningful discussion and responded to each other's thoughts, their story consists of multiple perspectives. There were discussions and presents of moral and ethical issues. Their empathy development was not just cognitive but also affective. The narrative was constructed with multiple layers due to the various perspectives and social construction.

Overall, the findings are wide and understanding that individuals' story writing provides a more personal and emotionally meaningful empathy development. Whereas, for collaborative story writing, empathy development is more in a broader sense and in a multidimensional form.

5.3 Qualitative findings Phase 2

Phase 2 of the study in the world and in-depth qualitative analysis is related to the development of empathy during the story-writing process. The analysis identifies 8 major themes which are discussed in detail.

5.3.1 Perspective-taking built on narrative

At the start of the story-writing task, participants engaged with the viewpoints of the characters, showing cognitive empathy. The statements used by the participants show that they were considering more than one viewpoint while creating the story. These findings match with the idea of cognitive empathy explained by Davis (1983), which mainly involves understanding other persons' perspectives and emotions. Even short perspective-taking activities like these can help in developing positive attitudes towards others (Batson et al., 1997). The theme explains that perspective-taking occurs naturally during the story-writing process and was not a forced phenomenon; while constructing the story, participants automatically started thinking about the situation and emotions of different characters. This finding aligns with Hodges and Wegner's (1997) study about the distinction between spontaneous and controlled perspective-taking, which suggests that empathy development is more genuine and meaningful when perspective-taking occurs naturally.

5.3.2 Empathy building through self-projection

The theme identified a constant shift in identification with characters; some of the participants tended to identify partially with a character and then move to a different character. This also identified that the participants partially connected with the characters without being fully engrossed in themselves. This theme builds with the concept of character identification (Cohen, 2001), but the present study shows a little different pattern as the participants oscillate between different characters rather than fully identifying with a single character. This fluidity may help participants understand the emotions and perspectives of different characters rather than being restricted to one.

5.3.3 Collective meaning-making

In the group story-writing condition the participants engaged in discussing ideas and emotions and worked together on building the story; due to this process, they engaged in shared meaning-making and developed empathy collectively. As different participants put forward their own points of view and emotional experiences, it helps the group members in expanding their own understanding of the characters and situation. Therefore, these themes strongly identify with the idea of social constructivist theory (Vygotsky, 1978) and social learning theory (Bandura, 1977), as both these studies suggest that learning takes place through social interaction and observation.

5.3.4 Empathy development through reliability and emotions

The participants were initially showing cognitive empathy, but gradually they were more emotionally engaged with the story. As the story progressed lot of participants reported that they were reminded of their own personal experiences and memories. Due to this personal engagement, they became more emotionally affected by the situation of the character. This theme indicates that personal relativity is also very important to feel connected to others. Moreover, these shifts from

cognitive empathy to a more emotionally engaged affective empathy relate to the idea of negative transportation theory (Green & Brock, 2000).

5.3.5 Moral reasoning and conflicting thoughts

While discussing the story, the participants were seen in a state of conflict about what should be the right action of the character. The participants discussed these actions in both practical situations and what would ethically be correct. These discussions help the participants to give a deeper thought about the emotions of the characters. The findings in this theme suggest that collaborative story writing provides a broader form of empathy, as it not only includes emotional connection with others but also understanding the moral concern of another person. It suggests that empathy develops care, concern and helping behaviour towards others (Batson et al., 1997).

5.3.6 Empathy building through self-reflexivity and insight

The theme identifies that while the participants were engaged in story writing, they started reflecting on their own lives and relationships with others. When the participants were discussing the situation of the characters, this started connecting with their personal experiences. For some participants, this activity helps them in understanding a clearer perspective about situations in their own lives. As suggested in the expressive writing paradigm, writing about emotionally meaningful experiences helps an individual in processing their emotions in a better way and improving self-understanding about different situations (Pennebaker, 1997). The current finding suggests that these insightful developments can occur through fictional story writing as well, other than writing about real experiences.

5.3.7 Empathy through communication awareness

This theme identified the importance of communication in resolving interpersonal problems and building strong empathy. The participants in different groups identified that the major conflicts and problems arise due to lack of communication, avoidance and misunderstanding. The story-writing process helps the participants in understanding the importance of communication. Therefore, empathy can be understood as something that is not just felt but also communicated.

While creating the story, the participants realise that the majority of the issues with the characters would have been resolved if there had been active communication between them. This finding can be an important implication for educational and counselling settings. As communication difficulty is the common issue, story writing interventions can be found effective.

5.3.8 Range of empathy across participants

While the participants engaged in story writing collectively, their emotional response to it was not the same. While some of the participants majorly focused on the construct of the story and did not engage more in the emotional relation with the character, there were participants who were deeply involved, and there was a visible emotional reaction, such as sadness, crying or in some cases, happiness.

This theme, therefore, suggests that empathy development is not the same in everyone, but their personal experience, trait and emotion also play a key role in the development of empathy. How the group engaged in developing the story also affects the emotional engagement and development of empathy.

Therefore, both qualitative and quantitative findings of the study indicate that collaborative story writing influences empathy and can be used as an effective way to enhance empathy levels. The

results also show many clear distinctions between individual and group story writing. The findings moved around different aspects such as perspective-taking, moral reasoning, self-reflection and communication awareness during the activity. Overall, the findings suggest that storytelling can be a meaningful yet simple intervention that can be used for empathy.

Chapter 6

Conclusion, implications and limitations

6.1 Conclusion

The study was aimed at exploring whether story writing, both in individual and collaborative conditions, could function as a useful psychological intervention for building empathy. The study also explored the influence of narrative transportation, affect and social desirability on empathy. The study proposed various objectives to examine this relationship using quantitative and qualitative methods. The finding revealed that story writing significantly contributes to empathy development. The individual story writing appeared to strengthen character identification with deeper personal involvement with the characters, whereas collaborative story writing enhanced

empathetic concern. The study also found that narrative transportation played an important role in increasing empathy across both conditions. The findings also suggested that the social desirability influence empathy responses.

The qualitative findings revealed various psychological processes involved in the development of empathy during story writing. Participants demonstrated various aspects such as perspective-taking shifts in identification with multiple characters, moral reasoning, communication awareness and others through the story-writing activity. The findings revealed that empathy developed gradually through interaction and identification with characters rather than as an immediate response. The participants reflected on their personal relationships, experiences and situations while engaging in the story-writing process; this indicates that the story-writing activity promotes both personal insight and emotional understanding. Individual differences in understanding and incorporating empathy were also observed during the study.

It is inferred that collaborative story writing serves as a meaningful intervention for empathy, promoting perspective-taking, emotional understanding and interpersonal awareness. The findings of this study have important practical implications; this intervention is inferred as a very cost-effective process and does not require clinical training. Therefore, it is suitable for therapeutic counselling and educational settings. With the degree of necessity towards empathy development, this intervention can act as a useful approach in all these settings. Further research is required to examine the long-term effectiveness of this intervention and the influence of factors such as personality and emotional engagement for the development of more refined tools in assessing empathy processes during collaborative story writing.

6.2 Implications

The results and findings of the study provide an important base for both theoretical and practical implications. The most important implications are discussed ahead.

In relation to theoretical implication, the study provides support for narrative transportation theory in relation to active story writing. As previous studies mostly focused on passive forms of narrative, the current study provided space for active creation of stories, suggesting that it can produce narrative transportation and empathy. The findings suggest deeper emotional immersion through story writing as participants actively create the characters and their emotional state. The findings in the current study also refine the multidimensional model of empathy (Devis, 1983), as it evidently shows different layers in empathy, such as cognitive and affective empathy, also mentioning affective empathy. The findings also suggest that social context, personality traits and many other factors play an important role in empathy development; it is not an individual trait but a socially constructed process.

The study also has practical implications to it. It is seen as a low-cost stable intervention for empathy. The intervention process is not limited to specially trained clinical experts, which allows the use in various educational, counselling and therapeutic settings. The intervention can be used by educators to develop empathy, emotional intelligence and prosocial behaviour in children. In counselling settings such as family counselling and grief-related therapy, this can be considered effective. As the study shows a decrease in personal distress after the story-writing activity, it suggests being useful in team-building programmes, group therapy, and conflict resolution settings.

6.3 Limitations

The current study used a relatively smaller sample size and experienced a significant attrition between the two phases; out of 80 participants in the first phase, only 58 participants completed the intervention and post-test measures. This shows a nearly 25.5% attrition rate. This causes limitations in the conclusion drawn from the quantitative analysis. Another limitation to the study was that the sample contained students from a single university between the age groups of 18 to 25. This limitation reduces the generalisability of the findings to other age groups and individuals from different social educational backgrounds.

Furthermore, as the study mostly relies on self-reported measures for empathy, it increases the chances for social desirability biases, despite the use of socially desirable response set 5. Lastly, the gap between the pre-test and post-test was considerably smaller, which reduces the durability for empathy gain over time, for these studies can incorporate a longer duration to get better results.

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Appendix A

Consent Form

Dear Participant,

I, Yashika Agarwal, a final year Master's student in Psychology at the Thapar School of Liberal Arts and Sciences (TSLAS), Patiala, invite you to participate in this research study. Please read the following information carefully before deciding to participate.

This study aims to explore whether story writing can be used as an intervention to enhance empathy, and to understand the differences between individual and group story writing in influencing emotional and interpersonal processes. The purpose of this research is to examine how engaging in story writing activities, particularly in a group setting, may influence empathy levels and related psychological processes.

As a participant, you will be required to provide basic information, complete questionnaires related to empathy and emotions and engage in story-writing activities in a group. Participants involved in group story writing will also take part in a second round of a brief interview consisting of open-ended questions about their experience. The interview will be audio-recorded for research purposes. The entire procedure will take approximately 30 minutes.

Your participation is completely voluntary. You are free to withdraw at any stage during or after the study. All the information provided by you will remain strictly confidential and will be used solely for academic and research purposes. Your identity will not be disclosed in any report or publication.

Eligibility Criteria: Participants must be between 18–25 years of age.

For any queries, you may contact:

Yashika Agarwal

6003624268

yagarwal_ma24@thapar.edu

Thank you for your participation.

Consent Form

I have read and understood the information provided above. I voluntarily agree to participate in this study. I understand that I can withdraw at any time and that my responses will remain confidential. I also consent to the audio recording of the interview for research purposes. Signature of Participant: _____

Appendix B

INTERPERSONAL REACTIVITY INDEX

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate letter on the scale at the top of the page: A, B, C, D, or E. When you have decided on your answer, fill in the letter next to the item number. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can. Thank you.

ANSWER SCALE:

A DOES NOT DESCRIBE ME WELL

B

C

D

E DESCRIBES VERY WELL

1. I daydream and fantasize, with some regularity, about things that might happen to me. (FS)
2. I often have tender, concerned feelings for people less fortunate than me. (EC)
3. I sometimes find it difficult to see things from the "other guy's" point of view. (PT) (-)
4. Sometimes I don't feel very sorry for other people when they are having problems. (EC) (-)
5. I really get involved with the feelings of the characters in a novel. (FS)
6. In emergency situations, I feel apprehensive and ill-at-ease. (PD)
7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it. (FS) (-)
8. I try to look at everybody's side of a disagreement before I make a decision. (PT)
9. When I see someone being taken advantage of, I feel kind of protective towards them. (EC) 10. I sometimes feel helpless when I am in the middle of a very emotional situation. (PD)
11. I sometimes try to understand my friends better by imagining how things look from their perspective. (PT)
12. Becoming extremely involved in a good book or movie is somewhat rare for me. (FS) (-)
13. When I see someone get hurt, I tend to remain calm. (PD) (-)
14. Other people's misfortunes do not usually disturb me a great deal. (EC) (-)
15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments. (PT) (-)
16. After seeing a play or movie, I have felt as though I were one of the characters. (FS)
17. Being in a tense emotional situation scares me. (PD)
18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them. (EC) (-)
19. I am usually pretty effective in dealing with emergencies. (PD) (-)
20. I am often quite touched by things that I see happen. (EC)
21. I believe that there are two sides to every question and try to look at them both. (PT)
22. I would describe myself as a pretty soft-hearted person. (EC)

23. When I watch a good movie, I can very easily put myself in the place of a leading character. (FS)
24. I tend to lose control during emergencies. (PD)
25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while. (PT)
26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me. (FS)
27. When I see someone who badly needs help in an emergency, I go to pieces. (PD)
28. Before criticizing somebody, I try to imagine how I would feel if I were in their place. (PT)

Appendix C

Positive and Negative Affect Schedule (PANAS)

Instructions: This scale consists of a number of words that describe different feelings and emotions. Read each item and indicate to what extent you have felt this way during the past week.

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
Interested					

Distressed					
Excited					
Upset					
Strong					
Guilty					
Scared					
Hostile					
Enthusiastic					
Proud					
Irritable					
Alert					
Ashamed					
Inspired					
Nervous					
Determined					
Attentive					
Jittery					
Active					
Afraid					

Appendix D

SDRS-5 item loading for the different sample.

1. I am always courteous even to people who are disagreeable.

2. There have been occasions when I took advantage of someone.
3. I sometimes try to get rather than forgive and forget.
4. I sometimes feel resentful when I don't get my way
5. No matter who I'm talking to, I'm always a good listener.

Appendix E

Scales of narrative transportation

1. Identification with character (Iguarta and paez 1998)

Dimension and items

I like the way of being or acting of the protagonists

I felt emotionally involved with the feeling of the protagonists

I felt as if I were one of the main characters

I imagined how I would act if I was in the place of the protagonists

I tried to carefully observe each of the action of the protagonists

I thought I looked alike or was very similar to the protagonists

I was worried about what was happening to the protagonists

I understood the way of acting, thinking, or feeling of protagonists

I have experienced the emotional reactions of the protagonists

I thought i would like to look or act as the protagonists

I tried to imagine the feeling, thoughts, and reactions of the protagonists

I felt as i has really lived the story of the protagonists

I understood the feelings and emotions of protagonists

I felt like i was a part of the story

I was able to anticipate what was going to happen to the protagonists

I tried to see things form the point of view of the protagonists

I felt identified with the protagonists

2. Transportation (Green and Brock, 2013)

Dimension and items

Cognitive

While I was writing the story, I could easily picture the event in it taking place

While I was writing the story, activity going on in the room around me was on my mind

I could picture myself in the scene of the events described in the narrative

I was mentally involved in the narrative while writing it

After the narrative ended, I found it easy to put it out of my mind

I wanted to learn how the narrative ended

Emotional

The narrative affected me emotionally

Imaginative

I found myself thinking of ways the narrative could have turned out differently

I found my mind wandering while writing the narrative

The events in the narrative are relevant to my everyday life

The events in the narrative have changed my life

Appendix F

Prompts used for story writing

1.A Classmate Who Suddenly Stops Attending

Imagine a student in a class who suddenly stops coming to college without informing anyone. Their messages in the class group remain unread, and no explanation is given. No contact or minimal contact with friends.

What classmates assume about the situation

Different emotional reactions among group members

What the student who stopped attending is experiencing

How communication eventually happens (or doesn't)

Reaction of the teachers asking for him/her.

2. Emotional Post on Social Media

Imagine a person uploads a long emotional post on social media talking about feeling lost and alone, without directly asking for help. The post receives likes, but very few comments.

How viewers interpret the post differently

Why people may hesitate to comment

What the person who posted it expects or hopes for

The emotional outcome for the person afterward

3. Group Chat Goes Quiet After a Conflict

Imagine there is a close friends' WhatsApp group that suddenly becomes silent after a small argument between two members. No one leaves the group, but no one talks either.

How each member interprets the silence

The thoughts of the two people involved in the conflict

Unspoken emotions within the group

What breaks the silence, if anything

4. The Friend Who Always Cancels

Imagine a close friend who has started cancelling plans at the last moment with vague excuses like not feeling well or too tired.

How different friends interpret this behaviour

The emotional reactions of the group

What the friend cancelling plans might be going through

How this affects the friendship over time

5. A person crying quietly in a public space, like a bus or a park. Strangers notice but react differently.

What different strangers think and feel

Reasons why some help and others don't

The inner experience of the person crying

How the moment ends

6. There is a family where one member has stopped participating in conversations during family dinners.

How each family member interprets the silence

Emotional reactions within the family

What the silent member may be experiencing

How the family dynamic changes

7. A parent who repeatedly shows that they are fine when asked about stress or health, even though their behaviour has changed.

How different family members interpret this response

The parent's possible internal state

Generational differences in expressing emotions

How the situation unfolds

Appendix G

Question for interview

1. What emotions did you experience while constructing the story?
2. Were you able to understand their perspective?
3. Did you identify with any of the character?
4. What were the reasons for identification?
5. Did your perception of any character change during the writing process?
6. How would you react or act if you were in a similar situation?
7. Did any of the situation made you feel unclear about your thoughts?
8. Did you notice any change while writing or after writing the story?
9. Did you feel any change in your emotional response after writing the story?
10. Did you emotionally connect to any of the character, if yes in what ways?
11. Did you feel that in any way your personal experience influenced the story?

