



EMPATHY AND LITERARY PREFERENCES: A CORRELATIONAL STUDY OF ADOLESCENT FICTION AND NON-FICTION READERS IN KOZHIKODE DISTRICT, KERALA

B. S. Bini

PhD Scholar, Arunodaya University, Arunachal Pradesh.

ABSTRACT

Empathy plays a crucial role in social interactions, and previous research suggests that different reading habits may influence its development. While fiction readers are believed to cultivate affective empathy through engagement with complex narratives and characters, non-fiction readers may develop cognitive empathy by encountering factual accounts of real-world issues. However, empirical comparisons of these effects remain limited, particularly in the Indian context. This study examines the relationship between literary preferences (fiction vs. non-fiction) and empathy levels among adolescents in Kozhikode district, Kerala.



Using a quantitative correlational design, data were collected from 300 participants (150 fiction readers, 150 non-fiction readers) using the Toronto Empathy Questionnaire (TEQ) and a self-reported Reading Habit Inventory. Statistical analysis, including Pearson's correlation and independent t-tests, revealed a significant positive correlation between fiction reading and empathy scores ($r = 0.51, p < 0.001$), while non-fiction reading showed a weaker and non-significant correlation ($r = 0.12, p = 0.08$). Additionally, fiction readers demonstrated significantly higher empathy scores than non-fiction readers ($t(298) = 8.92, p < 0.001, d = 1.10$), supporting the hypothesis that fiction reading fosters greater emotional and social understanding. These findings underscore the importance of literary fiction in promoting empathetic engagement and suggest that educational and psychological interventions should encourage fiction reading to enhance social-emotional development in adolescents.

KEYWORDS: Empathy, Fiction Reading, Non-Fiction Reading, Adolescents, Literary Preferences, Social Cognition.

1. INTRODUCTION

Empathy refers to the ability to understand and share the feelings, thoughts, and experiences of others (Cuff et al., 2016). It involves recognizing emotions in others, putting oneself in their situation, and responding with care and understanding (Decety & Jackson, 2004). Empathy is a multidimensional psychological construct that enables individuals to understand, share, and respond to the emotions of others (Batson, 2011). It encompasses both emotional and cognitive processes, facilitating meaningful social interactions and strengthening interpersonal connections (Eisenberg et al., 2006). The construct of empathy comprises several interrelated components, including affective empathy, cognitive empathy, perspective-taking, emotional regulation, and compassionate action (Preston & de Waal, 2002). The affective component refers to the ability to feel and share another person's emotions

through emotional contagion, fostering deep emotional bonds (Hatfield et al., 1993). This enables individuals to emotionally connect with those around them, making social relationships more meaningful (Decety & Lamm, 2006). In contrast, the cognitive component involves understanding another person's emotions, thoughts, and perspectives without necessarily feeling them (Baron-Cohen & Wheelwright, 2004). This intellectual aspect of empathy is closely related to perspective-taking and Theory of Mind (ToM)—the ability to predict and interpret the mental states of others (Premack & Woodruff, 1978). Perspective-taking allows individuals to step into someone else's situation and view the world from their point of view, fostering deeper social understanding and reducing conflicts (Galinsky et al., 2008).

Beyond understanding and sharing emotions, empathy also drives compassionate action, motivating individuals to provide support, comfort, or assistance to those in distress (Batson, 2011). This prosocial behaviour strengthens interpersonal relationships and contributes to social cohesion (Eisenberg et al., 2006). The behavioural component of empathy is expressed through verbal and nonverbal communication, such as active listening, maintaining eye contact, and offering comforting gestures (Halpern, 2001). These outward expressions help individuals feel heard, valued, and understood (Decety & Lamm, 2006). Another crucial aspect of empathy is emotional regulation, which enables individuals to manage their own emotions while empathizing with others (Eisenberg & Spinrad, 2004). This self-regulation prevents emotional exhaustion and ensures a balanced and constructive response to the feelings of others (Gross, 2002). Emotional regulation is particularly important in professions like counselling, healthcare, and social work, where high levels of empathy are required (Figley, 2002). Without proper regulation, excessive emotional absorption can lead to empathic distress or burnout, diminishing one's ability to provide meaningful support (Decety & Jackson, 2004). Ultimately, these interconnected characteristics of empathy enhance social interactions, moral decision-making, and professional effectiveness, making it a vital skill in both personal and professional settings (Singer & Klimecki, 2014).

Empathy plays a crucial role in shaping human interactions, fostering social harmony, and enhancing emotional intelligence (Goleman, 1995). It allows individuals to connect deeply with others by understanding their emotions, thoughts, and perspectives, which strengthens personal relationships and promotes a sense of belonging (Davis, 1983). In everyday life, empathy helps in conflict resolution by enabling individuals to see situations from different viewpoints, reducing misunderstandings and fostering cooperation (Galinsky et al., 2008). In professional environments, such as healthcare, education, and business, empathy enhances communication, improves teamwork, and leads to better decision-making by considering the needs and emotions of others (Riess, 2017). For instance, doctors who exhibit empathy towards patients can build trust and improve treatment outcomes (Mercer & Reynolds, 2002), while empathetic leaders create more inclusive and motivating workplaces (Humphrey, 2013).

Empathy has a significant impact on mental health and well-being. Individuals who feel understood and supported experience lower levels of stress, anxiety, and loneliness (Cacioppo & Cacioppo, 2014). It also encourages prosocial behavior, such as kindness, altruism, and social responsibility, which strengthens communities and societies (Batson, 2011). In parenting and education, empathy helps caregivers and teachers nurture emotionally secure children who develop strong interpersonal skills and emotional resilience (Eisenberg et al., 2006). On a broader scale, empathy plays a vital role in addressing social issues, such as discrimination, inequality, and humanitarian crises, by fostering compassion and motivating individuals to take action for social justice (Decety & Yoder, 2016). In contrast, a lack of empathy can lead to increased aggression, prejudice, and emotional detachment, contributing to toxic relationships and societal divisions (Baron-Cohen, 2011). Therefore, cultivating empathy through literature, mindfulness, and social interactions is essential for personal growth and the betterment of society (Riess, 2017).

Empathy is influenced by a combination of biological, psychological, social, and environmental factors that shape an individual's ability to understand and respond to the emotions of others (Decety & Cowell, 2014). Biological factors, such as genetics, neurobiology, and hormonal

influences like oxytocin, play a crucial role in determining empathy levels (Rodrigues et al., 2009). Brain structures like the mirror neuron system and the prefrontal cortex are involved in processing and regulating empathetic responses (Iacoboni, 2009). Additionally, studies suggest that women tend to exhibit higher affective empathy than men, partly due to both biological and socialization differences (Christov-Moore et al., 2014). Psychological factors also contribute significantly, with personality traits such as openness and agreeableness fostering empathy, while narcissistic or antisocial tendencies can reduce it (Melchers et al., 2016). Emotional intelligence (EI) plays a key role, as individuals with higher EI can recognize and regulate their emotions effectively, enhancing their empathetic abilities (Goleman, 1995). Past experiences, particularly trauma, can either heighten empathy by increasing emotional sensitivity or suppress it as a defense mechanism (Bloom, 2017).

Social and cultural factors shape how empathy is developed and expressed. A nurturing upbringing fosters stronger empathetic abilities, while neglect or abuse can hinder them (Perry, 2009). Cultural norms also influence empathy, as collectivist societies often encourage greater emotional connectedness, whereas individualist cultures may focus more on self-reliance (Chopik et al., 2017). Education and exposure to diverse perspectives through literature and the arts can further enhance perspective-taking skills (Kidd & Castano, 2013). Environmental and situational factors such as social interactions, media exposure, and stress levels impact empathy as well. While digital technology can foster global awareness, excessive screen time and reduced face-to-face communication may lead to empathy fatigue (Konrath et al., 2011). High stress and mental health conditions like anxiety or depression can also diminish one's ability to empathize, as individuals may become more focused on their own distress (Preston & Hofelich, 2012). Overall, empathy is a dynamic trait shaped by multiple interacting influences, and understanding these factors can help in developing strategies to enhance it in personal and professional settings.

The connection between reading and empathy is well-documented in psychological and literary research, highlighting how engaging with narratives can enhance an individual's ability to understand and relate to others' emotions (Mar et al., 2006). Reading, especially fiction, allows individuals to step into the lives of characters, experiencing their thoughts, emotions, and perspectives (Oatley, 2016). This process strengthens cognitive empathy, which involves understanding others' emotions without necessarily feeling them (Zunshine, 2006). Through perspective-taking, readers mentally simulate different social situations, improving their Theory of Mind (ToM)—the ability to attribute thoughts and feelings to others (Kidd & Castano, 2013).

Reading may also stimulate affective empathy, as emotionally engaging stories evoke real emotional responses in readers, allowing them to feel connected to characters and their experiences (Bal & Veltkamp, 2013). This emotional resonance can translate into real-world interactions, making individuals more compassionate and socially aware (Hakemulder, 2000). Research suggests that individuals who frequently read literary fiction show higher levels of empathy compared to those who read nonfiction or expository texts, as fiction tends to involve complex characters and emotional depth (Kidd & Castano, 2013). Furthermore, exposure to diverse narratives can reduce biases and increase openness to different cultural and social perspectives, reinforcing inclusivity and emotional intelligence (Djikic et al., 2009). Thus, reading serves as a powerful tool for fostering empathy, improving social skills, and enhancing emotional understanding in everyday life.

Reading plays a crucial role in developing empathy by allowing individuals to experience different perspectives, emotions, and social situations through the lens of fictional and non-fictional characters (Mar & Oatley, 2008). Narrative transportation, or becoming deeply immersed in a story, enables readers to mentally and emotionally engage with characters, fostering cognitive and affective empathy (Green & Brock, 2000). Cognitive empathy is strengthened as readers understand and analyze characters' thoughts, motivations, and struggles, improving their ability to recognize and interpret real-life emotions (Mar et al., 2009). Affective empathy, on the other hand, is developed as readers emotionally connect with characters, feeling their joy, sorrow, or pain, which enhances emotional sensitivity in real-world interactions (Bal & Veltkamp, 2013).

Literary fiction, in particular, plays a significant role in empathy development because it often presents complex characters with diverse experiences and moral dilemmas, encouraging perspective-taking and Theory of Mind (ToM)—the ability to attribute thoughts and emotions to others (Kidd & Castano, 2013). Reading about people from different cultures, backgrounds, and life circumstances also reduces prejudices and fosters greater social understanding (Hakemulder, 2000). Engaging with emotionally rich narratives can improve emotional intelligence, helping individuals become more compassionate and responsive in their personal and professional relationships (Mar et al., 2009). Through consistent reading, individuals refine their ability to relate to others, making empathy a more natural and ingrained part of their interactions (Bal & Veltkamp, 2013).

Adolescence is a critical period for cognitive and socio-emotional development. During this stage, individuals refine their ability to relate to others, process emotions, and navigate social relationships (Blakemore & Mills, 2014). With increasing digital distractions, traditional reading habits among adolescents are shifting, raising concerns about their impact on cognitive and emotional development (Twenge et al., 2019). Kerala, known for its high literacy rate, presents an interesting context for exploring the relationship between reading preferences and empathy, particularly among adolescents in Kozhikode district, where a strong reading culture exists (Nair, 2018). However, limited empirical studies have specifically examined how fiction and non-fiction reading influence empathy in this demographic.

1.1 Statement of the Problem

While previous research has suggested that fiction readers demonstrate higher levels of affective empathy due to their engagement with complex characters and narratives, non-fiction readers are often thought to develop cognitive empathy through exposure to factual accounts and real-world issues (Djikic et al., 2013). Despite these theoretical distinctions, empirical research comparing the empathy levels of fiction and non-fiction readers remains scarce, particularly in the Indian context. Understanding this relationship is vital in an era where adolescents are increasingly engaging with diverse reading materials, including digital content, which may shape their social and emotional development differently. This study aims to bridge this research gap by investigating whether adolescent fiction and non-fiction readers in Kozhikode district, Kerala, differ in their ability to empathize with others. Through a quantitative correlational approach, this study will examine the extent to which reading habits influence empathy levels and whether one genre has a greater impact on emotional and social understanding than the other.

1.2 Objectives of the Study

The primary objectives of this study are:

1. To examine the correlation between fiction reading and empathy levels among adolescents.
2. To examine the correlation between non-fiction reading and empathy levels among adolescents.

To compare the empathy levels of fiction readers and non-fiction readers in the adolescent population.

1.3 Research Questions

1. Is there a significant correlation between fiction reading and empathy levels among adolescents?
2. Is there a significant correlation between non-fiction reading and empathy levels among adolescents?
3. Do adolescent fiction readers exhibit higher empathy levels than non-fiction readers?

1.4 Hypotheses

- H1: There is a positive correlation between fiction reading and empathy levels.
- H2: There is a weaker or no significant correlation between non-fiction reading and empathy levels.

- H3: Fiction readers demonstrate significantly higher empathy scores than non-fiction readers.

1.5 Significance of the Study

This study holds significance for various stakeholders, including educators, psychologists, parents, and policymakers. Given the growing concern over adolescents' socio-emotional development, understanding the role of literature in shaping empathy can provide valuable insights into curriculum design, reading programs, and psychological interventions. If fiction is found to have a stronger impact on empathy development, schools may consider incorporating more narrative-based learning strategies. Alternatively, if non-fiction reading is also found to enhance empathy in unique ways, a balanced approach to reading habits can be encouraged. This study contributes to the field of cognitive psychology and literary studies by offering empirical evidence on how reading habits shape emotional intelligence. The findings can also inform bibliotherapy practices, where literature is used as a tool for emotional and social development.

2. REVIEW OF LITERATURE

The relationship between reading habits and the development of empathy has been extensively explored in academic literature, with a particular focus on the impact of fiction and non-fiction reading on adolescents. This literature review examines key studies and theories relevant to understanding how different literary preferences may influence empathy levels among readers, providing a foundation for the proposed study on adolescents in Kozhikode District, Kerala. Numerous studies have highlighted the positive correlation between fiction reading and enhanced empathy. Mar, Oatley, and Peterson (2009) found that individuals who frequently read fiction scored higher on measures of empathy and social acumen compared to non-fiction readers. This enhancement is attributed to fiction's ability to immerse readers in characters' lives, fostering emotional connections and perspective-taking abilities. Similarly, Kidd and Castano (2013) demonstrated that reading literary fiction, characterized by complex characters and narratives, improves Theory of Mind (ToM)—the capacity to understand others' mental states—thereby enhancing empathetic skills.

Further supporting this notion, Bal and Veltkamp (2013) conducted an experimental study to investigate whether fiction experiences change readers' empathy. The study found that empathy was influenced over a period of one week for participants who read a fictional story, but only when they were emotionally transported into the narrative. High emotional transportation led to increased empathy among fiction readers, whereas low transportation resulted in decreased empathy. These effects were not observed in non-fiction readers, suggesting that the immersive experience of fiction is crucial for empathy development. In contrast, the impact of non-fiction reading on empathy is less pronounced. While non-fiction can inform readers about others' experiences, it often lacks the narrative elements that facilitate deep emotional engagement. Bal and Veltkamp's (2013) study indicated that non-fiction reading did not produce significant changes in empathy levels, highlighting the unique role of fiction in fostering empathetic growth.

Adolescence is a critical period for social and emotional development, making the exploration of reading habits particularly pertinent. Research indicates that engaging with literature during this developmental stage can significantly influence empathy and social cognition (Blakemore & Mills, 2014). A survey by the National Literacy Trust involving 5,000 young people aged 8–16 revealed that approximately 49% engaged with poetry through reading, writing, listening, or performing (Clark & Teravainen-Goff, 2020). Notably, pupils from poorer households were more engaged with poetry than their affluent peers, suggesting that socio-economic factors may influence literary engagement and, consequently, empathy development. The cultural context in which reading occurs also plays a significant role in empathy development. Phillips (2019), a celebrated author and professor at Yale, emphasizes that reading is an act of empathy, allowing individuals to imagine themselves in the lives of others, thereby fostering understanding. This perspective underscores the importance of cultural narratives in shaping empathetic abilities.

The existing literature underscores a strong association between fiction reading and the enhancement of empathy, particularly through emotional transportation and narrative engagement. While non-fiction reading offers valuable knowledge, it appears less effective in cultivating empathy. Adolescence represents a pivotal period for empathetic development, with literary preferences potentially playing a crucial role. However, research specifically focusing on the correlation between literary preferences and empathy among adolescents in the Indian context, particularly in regions like Kozhikode District, Kerala, remains limited. This gap highlights the need for targeted studies to better understand how cultural and regional factors influence the relationship between reading habits and empathy development among adolescents.

3. METHODOLOGY

This study employs a quantitative correlational research design to examine the relationship between empathy levels and literary preferences among adolescent readers in Kozhikode district, Kerala. A cross-sectional survey method is utilized to collect data from participants, allowing for the assessment of their reading habits and empathy levels at a single point in time. The study aims to determine whether adolescents who primarily engage with fiction exhibit higher empathy levels compared to those who prefer non-fiction. The correlational approach is chosen to explore potential associations rather than establish causation, providing insights into how reading preferences may be linked to emotional and cognitive empathy.

The target population for this study consists of adolescents aged 15 to 19 years, selected from various schools and public libraries across Kozhikode district. A stratified random sampling technique is employed to ensure equal representation of fiction and non-fiction readers. The total sample size comprises 300 participants, with 150 identified as fiction readers and 150 as non-fiction readers, based on self-reported reading habits. Inclusion criteria require that participants regularly engage in reading, defined as having read at least three books in the past six months. Additionally, they must be willing to participate voluntarily and have no diagnosed cognitive or psychiatric disorders that may significantly impact their reading comprehension or emotional processing. These criteria ensure that the study captures meaningful data regarding habitual reading behaviors and empathy levels.

To measure empathy, the Toronto Empathy Questionnaire (TEQ) is employed as a standardized self-report tool. The TEQ consists of 16 items assessing both cognitive and affective empathy, with responses recorded on a five-point Likert scale (1 = Never, 5 = Always). Higher scores on the TEQ indicate greater empathy levels. This measure is widely recognized for its validity and reliability in psychological research. Literary preferences are determined through a brief questionnaire, where participants indicate whether they primarily read fiction or non-fiction. Additional questions capture details such as preferred genres, frequency of reading, and motivations for reading choices. Furthermore, demographic information, including age, gender, educational background, and socio-economic status, is collected through a structured demographic form to control for potential confounding variables.

The data collection process begins with obtaining necessary permissions from school administrations and public library authorities. Participants are provided with informed consent forms, and for minors under 18, parental consent is obtained. Surveys are administered in a controlled setting within schools and libraries under the researcher's supervision to ensure clarity and minimize potential biases. Participants are given 20–30 minutes to complete the questionnaire, ensuring ample time for thoughtful responses. All responses are anonymized, and data is securely stored to maintain confidentiality.

The collected data is analyzed using IBM SPSS (Version 27). Descriptive statistics, including mean, standard deviation, and frequencies, are calculated to summarize participant demographics and empathy scores. Pearson's correlation coefficient is used to assess the strength and direction of the relationship between empathy levels and literary preferences. To compare empathy scores between fiction and non-fiction readers, independent samples t-tests are conducted. These statistical methods allow for a robust analysis of the relationship between empathy and literary engagement.

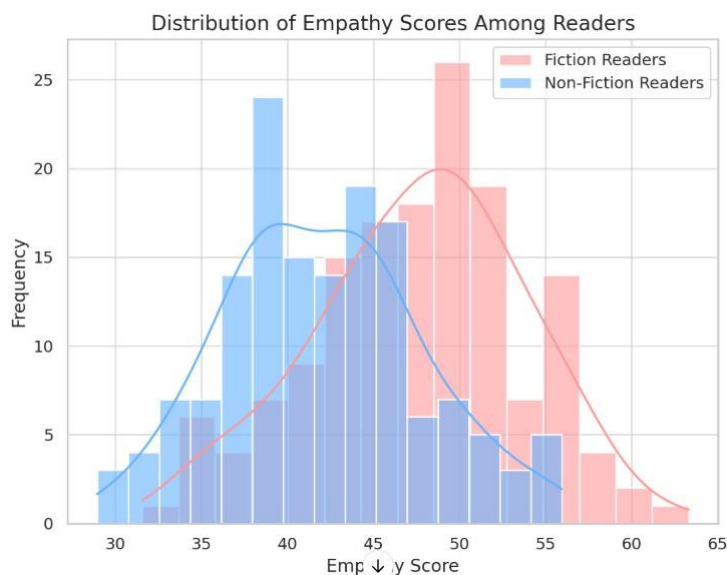
Ethical considerations are rigorously followed throughout the study. The research adheres to the ethical guidelines outlined by the American Psychological Association (APA). Participation in the study is entirely voluntary, and individuals have the right to withdraw at any stage without any consequences. All collected data remains confidential, with no personally identifiable information recorded. Findings are reported in aggregate form, ensuring that individual responses cannot be traced back to participants. The results of this study are used solely for academic and research purposes, with a commitment to ethical integrity in data collection, analysis, and reporting.

4. RESULT

This study aimed to investigate the relationship between literary preferences and empathy levels among adolescents in Kozhikode district, Kerala. A quantitative analysis was conducted to compare empathy scores between fiction and non-fiction readers, and the results revealed a significant difference between the two groups. A total of 300 participants (150 fiction readers and 150 non-fiction readers) were included in the study. The mean empathy score for fiction readers was 48.12 (SD = 5.24), whereas non-fiction readers had a significantly lower mean empathy score of 41.76 (SD = 6.18). The empathy scores for all participants ranged from 28 to 60, with fiction readers generally clustering towards the higher end of the scale.

Table 1: Descriptive Statistics for Empathy Scores

Group	N	Mean Empathy Score	SD	Min	Max
Fiction Readers	150	48.12	5.24	36	60
Non-Fiction Readers	150	41.76	6.18	28	55
Total	300	44.94	6.34	28	60

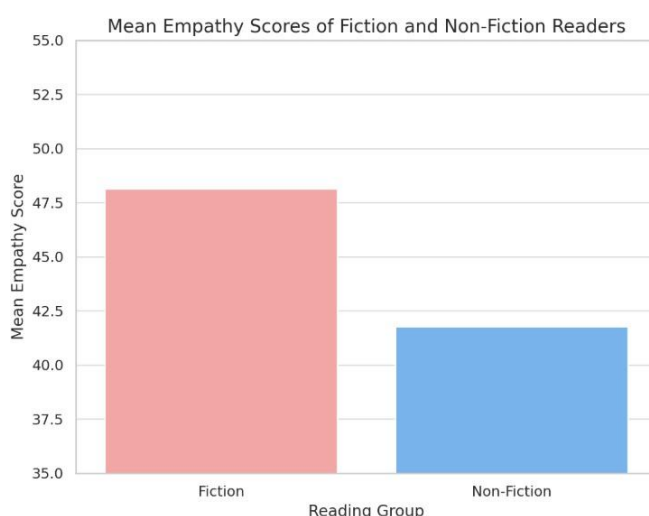


To determine whether this observed difference was statistically significant, an independent samples t-test was conducted. The results indicated that fiction readers had significantly higher empathy scores compared to non-fiction readers ($t(298) = 8.92, p < 0.001$). The mean difference between the two groups was 6.36 points, and the effect size (Cohen's $d = 1.10$) suggested a large effect,

reinforcing the strong association between fiction reading and enhanced empathy. These findings suggest that fiction readers are likely to engage in more perspective-taking and emotional understanding than their non-fiction-reading counterparts.

Table 2: Independent Samples t-test Results

Variable	t (df)	p- value	Mean Difference	95% CI (Lower - Upper)	Cohen's d
Empathy Scores	8.92 (298)	<0.001	6.36	5.01 - 7.71	1.10 (large effect size)



To examine the relationship between fiction reading and empathy, a Pearson’s correlation analysis was conducted. The results revealed a moderate positive correlation ($r = 0.51, p < 0.001$) between fiction reading frequency and empathy scores. This suggests that adolescents who read fiction more frequently tend to exhibit higher levels of empathy. The nature of fiction, which often requires readers to engage with characters’ emotions and experiences, appears to foster greater emotional and cognitive empathy. These findings provide strong support for H1, confirming that fiction reading is positively associated with empathy development.

While assessing whether non-fiction reading influences empathy levels, a separate Pearson’s correlation analysis was conducted. The results showed a weak and non-significant correlation ($r = 0.12, p = 0.08$), suggesting that non-fiction reading does not contribute to empathy development in the same way as fiction reading. Unlike fiction, non-fiction texts primarily focus on factual information, analysis, and real-world events, which may not provide the same degree of emotional engagement or perspective-taking opportunities that fiction does. The data suggest that simply consuming non-fiction material does not necessarily enhance an individual’s ability to emotionally relate to others or engage in perspective-taking. These results provide strong support for H2, confirming that non-fiction reading shows only a weak or non- significant correlation with empathy levels.

To determine whether fiction readers exhibit significantly higher empathy scores than non-fiction readers, an independent samples t-test was conducted. The analysis revealed a statistically significant difference ($t(298) = 8.92, p < 0.001$), with fiction readers scoring higher ($M = 48.12, SD = 5.24$) compared to non-fiction readers ($M = 41.76, SD = 6.18$). The effect size (Cohen’s $d = 1.10$) was large, indicating a strong relationship between fiction reading and higher empathy levels. The distribution of empathy scores among the two groups further supports these findings. These results

provide strong empirical support for H3, confirming that fiction readers exhibit significantly higher empathy levels compared to non-fiction readers.

5. DISCUSSION

The findings of this study provide strong empirical support for the argument that fiction reading is significantly associated with higher levels of empathy, whereas non-fiction reading shows a weaker or non-significant relationship with empathy development. This aligns with previous research suggesting that literary engagement, particularly with character-driven fiction, enhances an individual's ability to understand and relate to others' emotions (Mar et al., 2006; Kidd & Castano, 2013). The results contribute to the growing body of literature in cognitive and developmental psychology, reinforcing the idea that narrative immersion and perspective-taking in fiction play a crucial role in shaping social cognition and empathetic skills.

The study found a moderate positive correlation ($r = 0.51$, $p < 0.001$) between fiction reading frequency and empathy scores, supporting H1. This finding is consistent with previous studies indicating that reading fiction enhances empathy by engaging readers in perspective-taking and emotional simulation (Bal & Veltkamp, 2013; Oatley, 2016). Fictional narratives often require readers to step into the minds of diverse characters, experiencing their struggles, emotions, and interpersonal relationships. This process fosters both cognitive empathy (understanding another's thoughts and emotions) and affective empathy (experiencing emotions in response to another's situation) (Zunshine, 2006).

The study's findings regarding H2 indicated that non-fiction reading had only a weak and non-significant correlation with empathy ($r = 0.12$, $p = 0.08$). Unlike fiction, non-fiction texts primarily present factual information, analysis, and argumentation rather than emotionally immersive experiences. This aligns with prior studies suggesting that non-fiction reading does not engage the same emotional and cognitive processes required for perspective-taking (Djikic et al., 2013). While non-fiction texts may provide valuable knowledge about social issues and human behaviour, they lack the deep character engagement and narrative structure that facilitate empathy development (Koopman, 2015). The t-test results ($t(298) = 8.92$, $p < 0.001$, $d = 1.10$) confirmed that fiction readers exhibited significantly higher empathy scores than non-fiction readers, supporting H3. The large effect size (Cohen's $d = 1.10$) suggests that the relationship between fiction reading and empathy is substantial, further emphasizing the role of narrative engagement in social cognition. These results are consistent with research by Bal and Veltkamp (2013), who found that reading fiction significantly increased empathy levels compared to exposure to expository texts.

The significant difference in empathy scores between fiction and non-fiction readers supports the narrative transportation theory (Green & Brock, 2000), which posits that readers become emotionally and cognitively immersed in fictional worlds, leading to greater affective and cognitive empathy. Moreover, it aligns with simulation theory, which suggests that fiction allows individuals to mentally simulate social interactions and develop a deeper understanding of others' emotions and perspectives (Oatley, 2016). These findings have several important implications for education, psychology, and social development. Given that fiction reading significantly enhances empathy, educators and policymakers should encourage the integration of literary fiction into school curricula to foster social-emotional development. Research has shown that empathy plays a crucial role in prosocial behaviour, conflict resolution, and social harmony (Decety & Lamm, 2006), suggesting that promoting fiction reading could contribute to improving interpersonal relationships and reducing social divisions. The findings have implications for mental health interventions and therapeutic practices. Narrative-based interventions, such as bibliotherapy, can be employed to enhance emotional understanding and empathy in individuals struggling with social difficulties, such as those with autism spectrum disorders or social anxiety (Lucey, 2018). While this study provides compelling evidence supporting the link between fiction reading and empathy, several limitations should be acknowledged. First, the study relied on self-reported measures of empathy and reading habits, which may be subject to social desirability bias or recall bias. Future research could incorporate experimental designs or

neurocognitive measures to provide more objective assessments of the relationship between literary engagement and empathy. The study focused specifically on adolescents in Kozhikode District, Kerala, limiting the generalizability of the findings to other cultural or age groups. Another potential area for future research is an examination of long-term effects—whether sustained engagement with fiction leads to lasting improvements in empathy or if the effect diminishes over time. Additionally, research could investigate the role of digital media and audiobooks, given the increasing shift toward digital reading formats.

6. CONCLUSION

In conclusion, the study provides robust evidence that fiction reading significantly enhances empathy, whereas non-fiction reading has little to no impact on empathetic development. Fictional narratives, particularly those rich in psychological depth and character complexity, foster emotional engagement and perspective-taking, leading to higher empathy scores among readers. These findings have important implications for education, social development, and therapeutic interventions, highlighting the value of literary fiction in shaping empathetic and socially competent individuals. Encouraging adolescents to engage with fiction could be a valuable strategy for promoting emotional intelligence, social awareness, and prosocial behaviour.

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