Parasocial Friendship is Magic:

An Exploration of Loneliness, Self-Esteem and Television Viewing

Lily File

A thesis submitted to Auckland University of Technology in partial fulfilment of the requirements for the degree of Master of Arts (MA)

2026

School of Social Sciences/Humanities

Supervised by Dr Ying Wang and Dr Jay Wood

Abstract

Parasocial relationships refer to a perceived relationship between a television viewer and their favourite character. The relationship occurs when a viewer misinterprets a character's scripted actions as an interaction directed towards them, despite no physical interaction occurring. Some literature suggests that this relationship may protect a fan from negative mental health outcomes, but it is currently unclear if there are discernible benefits that stem from television viewing. The current study aimed to examine the role parasocial relationships may play in relieving feelings of loneliness related to low self-esteem. This was measured through an online Qualtrics survey distributed across four English-speaking countries. Participants were asked to identify how closely they related to their favourite television character, what their main reason for watching television was and how they rank their current self-esteem and level of loneliness. The main method of analysis used was a mediation model to determine if parasocial relationships could mediate the relationship between loneliness and self-esteem. Unfortunately, there were no statistically significant findings in the mediation model. However, the study found that older participants were more likely to engage with television due to loneliness than younger participants were and those with higher levels of self-esteem were more likely to watch television for entertainment purposes rather than as a coping mechanism to boost their mood.

Contents

List of Figures

List of Tables

Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor used artificial intelligence tools or generative artificial intelligence tools (unless it is clearly stated, and referenced, along with the purpose of use), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.”

Signed

Lily File (19/02/2026)

Acknowledgements

I would like to thank my supervisors, Dr. Ying Wang and Dr. Jay Wood for their support during the research process. I would also like to thank my parents for their support during the year I spent writing this thesis and their assistance with editing. This study was approved by AUTEC on April 10, 2025 (AUTEC Reference 25/82).

Parasocial Friendship is Magic: An Exploration of Loneliness, Self-Esteem and Television Viewing

What are Parasocial Relationships and why are they important?

Loneliness is an unpleasant feeling that many people face on a daily basis. Statistics suggest that up to 44% of the New Zealand population have experienced feelings of loneliness in the last four weeks. These statistics also indicate that 26.4% of New Zealanders are experiencing poor mental health and low self-esteem (Stats NZ–Tatauranga Aotearoa, 2023). A recent Ministry of Health report suggests that 14.3% of New Zealanders aged 15 and above have experienced high levels of psychological distress in the last four weeks, a figure which has doubled in the last decade (Ministry of Health, 2025).

During bouts of loneliness, people often turn to their family and friends for support (Zhang & Dong, 2022). This may include providing emotional support, alleviating burdens or providing information during a confusing time (Ministry of Social Development, N.D.). However, when they are not available, some people instead turn to television and fictional persons for support (Derrick et al., 2009). This is known in academic literature as a parasocial relationship.

Academic literature has established that low self-esteem is often associated with feelings of loneliness (Szcześniak et al., 2020). Other research suggests that social support or even perceived social support may alleviate some of the negative feelings that are associated with loneliness (Derrick et al., 2008). Similar evidence corroborates this, suggesting that individuals with greater amounts of social support experience fewer symptoms of loneliness than less supported individuals (Zhang & Dong, 2022). Derrick et al., (2009) establish in their own research that parasocial support may provide the same type of alleviation that has been demonstrated in studies with genuine social support. As this is a developing field, however, there is currently not enough evidence to support this claim.

The first academic concept of “parasocial relationships” was established in 1956. This was when research on how perceptions of fictional personas can be likened to real-world relationships began. Horton and Wohl (1956) coined the term that revolutionised the way that one-sided relationships were described in academia. Initially, the term involved a perception between a viewer and or listener of media and the fictional relationship they established with a television host, news caster, radio presenter or celebrity, but the term has grown to encompass fictional characters in later years. The relationship stems from the perceived interaction with the character observed by the viewer. This is often due to perceived empathy and directness that the character appears to display towards the viewer, despite no physical interaction taking place (Rubin et al., 1985). The viewer continues to maintain this ‘relationship’ through consistent television viewing after the initial interaction occurs.

Over the years, parasocial research has become more nuanced in its definition. Initially, Horton and Wohl refer to parasocial “interaction” and parasocial “relationships” as interchangeable terms used to describe this one-sided phenomenon. However, most research since the conception of these terms has begun to separate their definitions based on duration and level of investment from the viewer. Parasocial Interaction, therefore, refers to the interaction at the time of exposure to the media character (Dibble et al., 2016). This term is used exclusively to refer to the initial point of contact with the media persona. Parasocial Relationships, on the other hand, refer to an enduring, long-term commitment to the character figure that survives past the initial viewing of the media (Dibble et al., 2016). This is the term used when describing relationships that have existed for months or even years with the same media character.

Parasocial Relationship Formation

Parasocial relationships are formed through repeated interaction with fictional media. This can take many forms, but generally, these relationships are viewed as ‘interactions’ between viewer and character that provide happiness or joy for the

television viewer. These relationships stem from the continuous presence of the character in the media that the viewer engages with (Dibble et al., 2016). Over time, an artificial bond begins to form between the character and the viewer, known as a parasocial relationship (Horton & Wohl, 1956). The viewer, according to Horton and Wohl must then retain a level of understanding of the persona for the parasocial relationship to be maintained after the initial point of viewing.

While parasocial relationships have been studied using television shows that were airing on cable television, new research is branching into the realm of television streaming to understand how parasocial relationships may differ from previous decades. This is reflected in viewing statistics for streaming platforms as well. For example, in a four-week period, Netflix had almost 2.3 million viewers across New Zealand alone. Other platforms such as Disney+ and Amazon Prime video have also gained popularity, sitting at 1 million and 835,000 viewers each month respectively. Streaming platforms appear to be the most dominant form of television consumption, as traditional television viewing sits at just over 1.2 million viewers in comparison (Roy Morgan, 2025). Similar statistics for YouTube also show greater usage than standard television, as Google reported that 4.14 million New Zealanders were active users of the video streaming platform (Data Reportal, 2025).

The current academic research on fictional characters has also reflected the change to television streaming as opposed to watching cable television. Research conducted prior to streaming indicated that common reasons for television engagement were for relaxation or fulfilment of habit (Rubin, 1983), but new research by Tefertiller and Sheehan (2019) notes that information seeking, stress management and parasocial interaction or watching to see a favourite television character are also becoming more common motivations in the streaming age.

It is also theorised that television viewers are more likely to return to the same television media for comfort as they are no longer limited to local television network programming (Pimienta, 2023). This is where the parasocial relationships appear to

have evolved over the years. They are no longer limited to single instances of interaction as television shows can be continuously viewed due to their presence on streaming platforms.

The evolution of media consumption from previous decades has potentially, increased the amount of time television viewers spend ‘interacting’ with their parasocial characters. Because academic research on the topic has expanded as well, more information has been gathered on exactly how these ‘relationships’ function and how they evolve over time.

Literature Review

Identification and Character Homophily

There are many reasons parasocial relationships may form. One of the leading theories is that they are formed due to character identification or perceived similarity (Brodie & Ingram, 2021).

Identification with a parasocial character has been a predictive factor in the development of parasocial relationships. Identification is often defined as general empathy and understanding towards a fictional character and their behaviour or struggles (Chory-Assad & Yanen, 2005). Auter and Palmgreen (2000) and Rarity et al., (2022) both indicate identification is a major contributing factor to the maintenance of parasocial relationships with fictional characters. However, identification may also take the form of desire to become like the character as well.

Not all character identification relates to characters who are similar to viewers. Oliver et al., (2019) examined morally dubious characters to understand why they are liked, despite the differences between them and the television viewer. The authors theorise this is likely due to a viewer empathising with the character in some capacity. They found that although morality can often influence character liking, it was less relevant the more intense the parasocial relationship with a morally grey character was.

It appears that the more the viewer engaged with the character, the less likely the participant was to dislike them based on their moral alignment.

Wishful Identification and Parasocial Relationships

Academic research does not usually focus on the reason a television character may become a viewer's favourite, but some research suggests potential links between a viewers' goals and character favouritism. Gleason et al., (2017) suggest that parasocial relationships may be more likely to form due to engagement in the same hobbies or activities as the parasocial character. This could suggest that the concept of wishful identification plays a role in the adoption of parasocial relationships. Wishful identification refers to a television viewer's desire to become or act similarly to their favourite parasocial character (Ramasubramanian & Kornfield, 2012).

Researchers Chory-Assad and Yanen (2005) determined that character identification may also reflect a viewer's wish to become more like the character they see on television, going so far as to adopt behaviour and incorporate aspects of the fictional person into their current self-image. The authors found that wishful identification (the concept that a viewer wishes to become like the character) and identification with a parasocial character were separate and distinct concepts. Character identification simply refers to how strongly a television viewer can relate to a parasocial character and does not involve a desire to become like them, unlike wishful identification.

This is a unique finding as many researchers use the terms wishful identification and character identification interchangeably. Chory-Assad and Yanen establish that wishful identification with a character can be separate from the overall character identification. They suggest that when a viewer loses motivation in their real life, they may turn to their favourite fictional persona for comfort or motivation to continue, which is referred to as wishful identification. This can be separated from general character identification which refers to simply understanding the character's perspective. In their

study, they demonstrated that those with greater motivation loss displayed more wishful identification towards a parasocial character. Individuals with higher motivation had less wishful identification and greater general identification with a character. Wishful identification was also associated with higher feelings of loneliness.

Further evidence of character identification as a basis for parasocial relationships comes from neuroimaging studies (Ash et al., 2023). For example, Broom et al., (2021) examined the role of trait identification with a chosen character and subsequent activation of the ventral medial prefrontal cortex (vMPFC). This region of the brain is hypothesized to store knowledge about the self and personal image. Participants performed a task that focused on trait evaluation for nine different fictional characters compared to nine of the participants' close friends and family. This was to establish a control for identification.

Participants who had greater trait identification with their favourite television character had higher neural overlap in their vMPFC than compared to when they were viewing other fictional characters. Viewers who had less intense parasocial relationships demonstrated less overlap in the vMPFC. The more participants became invested in their characters' story, the more they tended to react to that character in their vMPFC. This finding is remarkable as it demonstrates a possible neurological impact that stems from parasocial relationships. However, the sample size for this study was small, with just 26 participants, so future research is needed to see if these results can be replicated.

Homophily and Character Similarity

While character identification and character similarity are similar concepts, in that they both relate to how a viewer perceives a television character, they are in fact distinct concepts. Character similarity is defined as any aspect of a character that the viewer may relate to or see similarity in (Möri & Fahr, 2023). For example, this may be a character’s values, morals or ethics, it could be their physical appearance (i.e. both

the character and viewer could wear glasses), or it could be that the viewer can relate to them because they have also experienced a situation the television character experiences during their television show (Möri & Fahr, 2023). Similarity may also be indirect, as it can be subjective to the viewer (Moss et al., 2007). This is referred to as perceived similarity and often occurs when there are no obvious signs of similarity present.

Research by Auter and Palmgreen (2000) indicated that parasocial relationships have a strong basis in character identification specifically for favourite characters. They also determined that viewers identify more strongly with characters they are more familiar with or those whom they have had more exposure to. Research by Rarity et al., (2022) also theorised that character identification may be related to perceived similarity. By using characters from *My Little Pony: Friendship is Magic*, the authors identified correlations between character traits and viewer personalities. For example, one of the characters is known for their humour, and viewers who identified with her more than the other characters also demonstrated high levels of humour when surveyed by the researchers. This finding would suggest that character similarity is related to or may be a proceeding factor in the adoption of a parasocial relationship.

The Parasocial Compensation Hypothesis

Contrary to the research that suggests a potential protection from negative outcomes, some scholars propose that parasocial relationships are instead used to compensate for a lack of social interactions with other people. These scholars such as Tsao, (1996) argue that the parasocial relationship is used to compensate for negative real-world experiences, or in some cases, provide an alternative to socialisation altogether. This is known as the "*Parasocial Compensation Hypothesis"* (Bernhold, 2019).

Madison et al., (2016) suggests that the parasocial relationship acts as a proxy that allows the viewer to engage in a "social" relationship free from interpersonal

conflicts or rejections. This is because the viewer is in control of these interactions, allowing them to create a perfect environment for themselves. By using parasocial contact, the viewer is essentially fulfilling their needs for social contact without interacting with a real person (Bernhold, 2019). But overreliance on fictional persons may hinder real-world connections so the consequences may outweigh any potential benefits (Godman, 2024).

Derrick et al., (2009) suggest that parasocial relationships can act as social surrogates. They hypothesised that television shows and media characters can provide a sense of belonging that is akin to being included in a real-world social group. Their research suggested that the parasocial character would protect the viewer from negative outcomes, such as loneliness. They determined that using a viewer's favourite television program would buffer against these negative outcomes, most prominently when the viewer's favourite character was on screen. They concluded that a favourite character could buffer a viewer against fears of rejection, despite the relationship being fictional. Unfortunately, the authors do not establish if the buffering effect supresses or fulfils the need to belong.

As parasocial characters become easier to access through avenues like social media, similar changes in the quality and availability of these relationships are seen in the literature. A new but developing branch of work appears to be related to social media influencers who exist in a more intimate parasocial context than fictional characters. Baek et al., (2013) and Szcześniak (2020) both determine in their research that parasocial relationships with influencers are positively correlated with viewer loneliness. They note that much like Madison et al., (2016), parasocial relationships are often used to cope with loneliness and isolation that occurs in the real world. These parasocial characters are perceived to be the viewers' friends and engagement in their media is prioritized as a form of escapism which likely contributes to the viewers' loneliness. Baek et al., (2013) conclude that if they had included data on relationship

intensity, they could have drawn a conclusion on the extent of parasocial relationships with influencers and loneliness more concisely.

Tsao (1996) also believes that the compensation hypothesis is a prominent reason for relationship maintenance. Tsao investigated this using two dimensions of thought, the deficiency paradigm and the global-use paradigm. Tsao's deficiency argument argues that much like the compensation hypothesis, the parasocial relationship is undertaken to fulfil a viewer's social requirements due to a lack of real-world relationships. Tsao's global use theory proposes instead that engagement in parasocial relationships happens regardless of the viewer's real-world social needs. The parasocial relationships act more as extraneous attachments, rather than social surrogates. Tsao determined that most parasocial interaction behaviour occurs in addition to real-world social behaviour, and it was only used in a compensatory manner when a viewer experienced lower empathy, extraversion, higher neuroticism and subsequently engaged in more television media. Similarly, Stein et al., (2022) determined that when a participant was thinking about their favourite media character, there was a slight alleviation of their negative mood. This would also suggest that the compensation hypothesis may provide a buffer towards negative outcomes.

Iannone et al., (2017) and Lim and Kim (2011) suggest that the parasocial compensation hypothesis may be beneficial for socially ostracised individuals to alleviate their need for socialisation. For example, Lim and Kim (2011) cite persons over the age of 60 as a group that could be benefitted by parasocial relationships. They note that due to the loss of mobility that comes with age, parasocial characters offer a perfect remedy to loneliness, particularly as they can be interacted with easily and without leaving home. Parasocial characters allow for a pseudo-social interaction to occur that appears to compensate for a lack of real-world social interaction. Unfortunately, there was no information about any long-term effects from this interaction.

Mental Health Implications

Parasocial engagement is often seen as an activity with no real-world implications, but a growing branch of literature has demonstrated that these relationships can impact mental health outcomes. Some scholars argue that parasocial relationships may alleviate negative outcomes (such as Zhang & Dong, 2022), whilst others believe they provide compensation for social deficits (known as the compensation hypothesis).

Scholars investigating parasocial characters and their impact on self-esteem are unable to reach a consensus. Derrick et al., (2008) suggest that parasocial relationships work to boost viewers' self-esteem. Low self-esteem individuals in their study were able to better their self-discrepancies and boost their self-esteem by relating to a parasocial character. However, there do not appear to be any other studies that support this claim or any that have tested this finding against other self-esteem outcomes. Lotun et al., (2024) also suggest that parasocial relationships may be capable of fulfilling emotional needs more than real-world social relationships. Their study suggests the higher a viewer's self-esteem is, the more the viewer felt the parasocial character had impacted their emotions. In their study, viewers felt that parasocial relationships were better at mediating emotional need fulfilment due to their immediate availability when compared to their own personal relationships.

One of the original studies that explored the potential connection between loneliness and parasocial relationships was conducted by Rubin et al., (1985). In their study, Rubin and colleagues examined whether loneliness could facilitate and thus predict the existence of a parasocial relationship. This was based on the idea that lonely individuals are more likely to seek out media (such as television) to cope with stressful life events. They determined that lonely individuals seek comfort from parasocial characters, a finding expressed in almost all research conducted on the topic. Their study concluded a significant statistical correlation between parasocial interaction and reliance on television; however, their findings do not indicate the

existence of any long-term outcomes that may 'protect' the viewer from extreme symptoms of loneliness. Similar research by Wang et al., (2008) also suggests that parasocial relationships are used as coping strategies. For example, women use parasocial interaction more than men do to cope with chronic life events. Men use parasocial interaction to cope with chronic symptoms of loneliness more than women do.

Compensation and Attachment

Several studies have also examined the role of attachment in parasocial relationships. Pimienta (2023) suggests that parasocial relationships should be examined as a means of compensating for socially undesirable attachments in the real world. Several studies have suggested that parasocial relationships are predicted by avoidant attachment styles and or levels of anxiety. This is seen in studies by Rosaen and Dibble (2015), Madison et al., (2016), Bernhold and Metzger (2018) and Rain and Mar (2021). This research also suggests that parasocial relationships may compensate for negative outcomes, such as depressive symptoms but only for individuals with avoidant attachment styles (Bernhold, 2019). These studies suggest that parasocial relationships may only have effects for a small population group and not the wider population.

Lack of Consensus

While the compensation hypothesis is often cited in literature as the main reason parasocial relationships are undertaken, very little evidence for it is seen in academic studies. For example, Bernhold (2019) appears to demonstrate that avoidantly attached individuals use parasocial relationships to compensate for a lack of social relationships. However, Bernhold does not relate this back to the general population, meaning that these findings only apply to a small subgroup. This is also found in Iannone et al., (2017) and Lim and Kim (2011)’s results as they too note compensation in their population subgroups. Currently there is not enough research on a general population to understand the broader implications of parasocial relationships.

Godman (2024) suggests that parasocial relationships may cause more harm than good as they may further ostracise any real-world relationships a television viewer maintains, but their research does not specify which population groups may be at risk of this. More research needs to focus on general populations to determine if the parasocial compensation hypothesis can be applied to anyone involved in a parasocial relationship, or if it is exclusively small population subgroups that see the most impact from television engagement. Based on the literature presented above, two research questions for the current study have been formulated to try and address the existing gaps in parasocial literature. The first question comprises the main analysis of the study. Previous research has focussed only on time spent watching television as opposed to viewing motivations, thus the second question is exploratory in nature and aims to address this gap in the literature.

1. Do parasocial relationships mediate the relationship between self-esteem and loneliness?
2. What is the relationship between parasocial engagement and television viewing?

Based on results from previous literature, it is hypothesized that parasocial relationships will be able to buffer against the negative symptoms of self-esteem and loneliness as seen in the parasocial compensation hypothesis. More specifically, it is believed that the presence of a parasocial relationship will increase self-esteem and lead to decreases in feelings of loneliness.

Methods

Design

The cross-sectional study used a quantitative mediation model for the research phase. Three variables were chosen for this model. The predictor variable (self-esteem) was analysed to determine how it affected the outcome variable (loneliness)

by using parasocial relationships as a mediator. This was to determine if parasocial relationships had any impact on the relationship between self-esteem and loneliness.

Participants

A priori power analysis using G*Power was conducted to determine the required sample size for the current study. Assuming a small effect size of *d* = 0.30, alpha level 0.05 and statistical power at 0.80, approximately 175 participants are required for a two-tailed test (Fritz & MacKinnon, 2007).

The study was able to recruit 576 participants through convenience sampling methods. In the sample, 20.4% of the participants were Male, with 45.1% being Female. Intriguingly, 29.7% of participants did not identify within the gender binary, instead identifying as Non-Binary or another identity altogether. Finally, 2.9% of participants did not specify their gender identity at all. Age ranged between 16 and 57 years, with a mean of 21.7 years and *SD* = 6.73. Approximately 29% of participants were from New Zealand, with the remaining 71% of participants coming from other countries such as Australia, the United Kingdom and the United States. Participant ethnicities were diverse, but the biggest groups seen in the sample were Europeans (54.7%), New Zealand European/Pakeha (15.1%), Asians (11.5%) and people of mixed ethnicity (8.4%). The smaller population groups were Latin American/Hispanic (3.3%), Pasifika (1.9%), Māori (1.5%), Middle Eastern (1.2%) and finally African (1%).

The data was thoroughly inspected before analysis began. Before data cleaning, 949 cases were recorded. However, a significant number of cases were removed due to incompletion (n = 374) or because participants had answered important questions incorrectly (n = 198). Responses that were removed for answering important questions with incorrect answers were because participants either answered the attention check questions incorrectly or answered ‘no’ when asked if they had a parasocial relationship. A handful of cases also had to be removed due to being below

the age requirement for the study. This meant that the number of usable data points in the sample dropped to 576.

Measures

The study utilised four scales for data collection. These were the Audience-Persona Interaction scale to assess parasocial relationships, the UCLA Loneliness Scale, the Rosenberg Self-Esteem scale to assess loneliness and self-esteem and finally, the Television Motivation Scale to assess the reasons viewers engage with television. These scales are presented in their entirety in Appendix B.

The *Audience-Persona Interaction Scale (Auter & Palmgreen, 2000)* asks various questions about the participant's relationship with a specific fictional character. This scale was chosen for its use of four distinct subscales (*Identification with Favourite Character, Interest in Favourite Character, Group Identification/Interaction and Favourite Character Problem Solving Abilities)* which demonstrate a more comprehensive understanding of why the specific fictional character was chosen. These align with research that indicates strong correlations between character identification and the development of a parasocial relationship (Broom et al., 2021). The scale was also chosen due to its measuring of long-term parasocial relationships, as opposed to parasocial interactions (Dibble & Rosaen, 2011). The 22-item scale utilises a 5-point Likert scale ranging from strongly agree to strongly disagree and has high internal consistency at α = .84. Each scale was also assessed for internal validity, and the scores are as follows. Interest subscale α = .82, Identify subscale α = .81, Group subscale α = .73 and finally, Problem subscale α = .70 (Auter & Palmgreen, 2000).

In the current study, the reliability of the subscales was: Identify α = .80, Interest α = .54, Group α = .64, and finally Problem α = .77. Examples of questions given to participants are: "*I'd enjoy interacting with (character) and my friends at the same time."* from the Group Identification Subscale and *"I wish I could handle problems*

as well as (character).” from the Character Problem-Solving Abilities Subscale. See Appendix B for all items. Each subscale (identify, interest, group and problem) has between five and seven questions attached to it, which are averaged together to make an aggregate score for each of the four scales.

The *UCLA Loneliness Scale (Russell et al., 1978)* was used to examine a participant’s level of loneliness. This scale was chosen due to its simplistic language and universal items. The 20-item scale uses a 4-point Likert scale ranging from “I often feel this way” to “I never feel this way”. The scale was also selected due to its high internal consistency rating at α = .96 (Russell et al., 1978). In the current study, this reliability score was found to be α = .94. Examples of items include *“I am unable to reach out and communicate with those around me.” and “My social relationships are superficial.”* An aggregate score is calculated by taking the mean of all twenty items.

A slight modification was made to the UCLA Loneliness scale for the distribution of the current survey. Item 11 of the scale (*“I find myself waiting for people to call or write.”)* was modified slightly to reflect more modern communication methods, without changing the meaning of the question. It was updated because the original scale was developed in 1978, and most people do not communicate via written letters anymore. This was changed to refer to digital messaging services. The updated question reads *“I find myself waiting for people to call or message.”*

The *Rosenberg Self-Esteem Scale (Rosenberg, 1979)* was used to ask various questions about participants’ current perceptions of their self-esteem. This 10-item scale was chosen due to its widespread and reliable usage. Example items include “*All in all, I am inclined to think that I am a failure.”* and *“I feel that I have a number of good qualities*. Each item was assessed on a four-point Likert scale. Negatively worded items in the scale such as *“At times I think I am no good at all.”* are reverse scored to align them with the other items in the scale. This scale also has high internal consistency at α = .92 and has been shown to be a reflective measure of self-esteem in a population (Rosenberg, 1979). In the current study, this consistency was found to be

α = .90. An aggregate score for this scale is calculated by taking the mean of all ten items which includes some reverse scored items. Higher scores indicate higher self-esteem.

Finally, items from the *Television Usage, Attitudes and Behaviours* Scale *(Rubin, 1983)* will be adapted for analysis of participant motivation. The scale contains 27 different items across 9 subscales. The subscales that make up the overall scale are Relaxation, Companionship, Habit, Pass Time, Entertainment, Social Interaction, Information, Arousal and Escape. Each of these contains three statements that relate to a potential motivation for why an individual would engage in television viewing. For example, the arousal subscale statements imply that the viewer watches because of the excitement that they gain during viewing, as the statements refer to the show being thrilling, exciting or something that "peps me [viewer] up". Participants responded to each of the engagement statements on a Likert scale ranging between *"Exactly"* to *"Not At All".* Examples of engagement reasons include: *"Because it relaxes me."* from the Relaxation subscale*, "Because it makes me feel less lonely."* from the Companionship Subscale and *"So I can get away from the rest of the family/others."* from the Escapism Subscale. Scores for this scale are calculated for each subscale, providing 5 average scores for each of the items attached to the scales. This is a total of 18 items. Although the scale contains 9 subscales and a total of 27 items, four of the subscales were not retained for data analysis. These items are excluded due to low eigenvalues in factor rotation. The included scales are Pass Time, with the inclusion of two of the factors from the habit subscale, the information scale, the entertainment scale, the companionship scale and the escapism scale. The original paper does not include specific reliability analyses, but the current study established them as follows: Pass Time/Habit α = .83, Information α = .65, Entertainment α = .68, Companionship α = .81 and finally, escapism α = .70.

Procedure

This study was approved by AUTEC on April 10, 2025, prior to the distribution of the survey on social media. The study consisted of an online survey hosted by Qualtrics and distributed via social media. Participants were invited to complete the survey from the recruitment posters. Clicking on the link provided or scanning the QR code took participants to the survey. This redirected them to the participant information sheet at the beginning of the survey. To participate in the survey, participants had to meet three criteria. Firstly, participants had to be over the age of 16 to meet research consent requirements. Secondly, the participants had to have a parasocial relationship with a fictional character. If not, the survey directed them to the end and did not allow them to complete the questions further. Finally, they had to indicate their consent to take part in the research. After these questions, simple demographics about their gender identity, ethnicity and general global location were obtained for analysis. Participants then worked their way through the four scales presented in the survey (loneliness, self-esteem, television motives and parasocial relationships). Each of the survey scales were presented in randomised order to ensure participants did not encounter the two trait scales (loneliness and self-esteem) directly after one another. Throughout the four scales, subtle attention check questions (for example, *"Please select strongly disagree to show that you have read this question correctly,"*) were inserted to ensure participants were not simply completing the survey to enter the prize draw without paying attention to the questions. At the end of the survey, participants were given the option to enter a prize draw to thank them for their participation.

Results

Preliminary analyses

Pearson's Correlations as seen in Table 1 suggest that the viewing motivation subscales, self-esteem (SE) scores and loneliness scores were all highly related to one another. In general, older participants tended to report lower SE and more loneliness.

As expected, loneliness and SE were related, with participants higher in SE reporting less loneliness. Participants who were more likely to watch television for information gathering, entertainment, escapism or companionship were more likely to be older and have more intense parasocial relationships with fictional characters.

Of particular interest was the relationship *between parasocial relationship intensity and self-esteem and between parasocial relationship intensity and loneliness.* As seen in Table 1, the higher a viewer's self-esteem is, the less likely they are to interact with a fictional character through parasocial viewing. However, there does not appear to be a significant relationship between parasocial relationships and loneliness.

Findings seen between self-esteem, and three of the four television viewing motivations would indicate that the higher a viewer's self-esteem level is, the less likely they are to use television for companionship, information seeking, and escapism. The higher their self-esteem, the more likely they are to watch television solely for entertainment. The correlations in Table 1 also suggest that the lonelier a viewer feels, the more likely they are to be motivated to watch television for habit, companionship or escapism instead of for entertainment.

Table 1

Descriptive Statistics and Correlations between Parasocial Relationship Intensity, Television Motivations, Self-Esteem, Loneliness and Participant Age

Variable	*n*	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. Self-Esteem Total	545	31.86	6.08	-								
2. Loneliness Total	542	44.11	13.27	-.61**	-							
3. API Total	576	48.04	10.73	-.09*	.08	-						
4. Age	576	21.67	6.73	-.22**	.18**	.06	-					
5. TV Habit	544	13.20	4.97	-.23**	.26**	.06	.11*	-				
6. TV Information	544	12.91	3.68	-.07	.07	.21**	-.03	.21**	-			
7. TV Entertainment	543	5.06	1.91	.11**	-.12**	.09*	.15**	.23	.17**	-		
8. TV Companion	544	8.23	3.59	-.40**	.51**	.25**	.14**	.43**	.23**	.13**	-	
9. TV Escapism	544	6.83	3.09	-.34**	.30**	.23**	.23**	.41**	.19**	.22**	.53**	-

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

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

Note: API refers to the Audience Persona Interaction Scale used in this study (Auter & Palmgreen, 2000). “TV Habit, Information, Entertainment, Companion and Escapism” refer to Viewing Motivation subscales (Rubin,1983).

To check that there were no significant differences between groups on the outset, a one-way between groups analysis of variance (ANOVA) was conducted on all scales to measure potential differences in gender orientation. The results of this ANOVA are displayed in Table 2. The only statistically significant differences were found in Loneliness scores and the Parasocial Identification scale "API Identify" which refers to the extent a participant identified with their parasocial character. Post-Hoc testing using the Tukey HSD model determined that there was a statistically significant mean difference between the Female and Non-Binary groups in scores of loneliness (p = .024). For identification with a parasocial character, each of the three population groups differed from one another but this was not statistically significant. It should be noted that all findings had very low effect sizes.

Table 2

Means, Standard Deviations, and One-Way Analyses of Variance in Parasocial Relationships, Television Usage, Self-Esteem and Loneliness Split by Participant Gender

Variable	Male		Female		Non-Binary/Other		$F(2, 525)$	η^2
	M	SD	M	SD	M	SD		
Self-Esteem Total	31.88	6.56	31.37	5.89	32.53	6.08	1.81	.01
Loneliness Total	43.38	14.28	45.91	12.72	42.39	13.32	3.78*	.01
TV Habit	12.89	4.96	13.15	4.63	13.29	5.46	.22	.00
TV Information	12.83	3.96	13.04	4.96	12.63	3.56	.58	.00
TV Entertainment	5.15	1.90	4.98	1.98	5.04	1.78	.31	.00
TV Companion	7.87	3.74	8.50	3.57	8.03	3.59	1.49	.01
TV Escapism	6.81	3.11	6.88	3.05	6.73	3.20	.11	.00
API Identify	12.66	4.57	14.18	5.16	13.02	4.49	5.26*	.02
API Interest	10.30	3.21	9.85	3.06	10.0	3.01	.90	.00
API Group	15.61	4.31	16.31	4.20	15.82	4.14	1.39	.01
API Problem	8.54	3.38	8.25	3.80	8.86	3.70	1.40	.01

* Statistic is significant at the 0.05 Level (2-tailed)

Note: API refers to the Audience Persona Interaction Scale used in this study (Auter & Palmgreen, 2000). “TV Habit, Information, Entertainment, Companion and Escapism” refer to Viewing Motivation subscales (Rubin,1983).

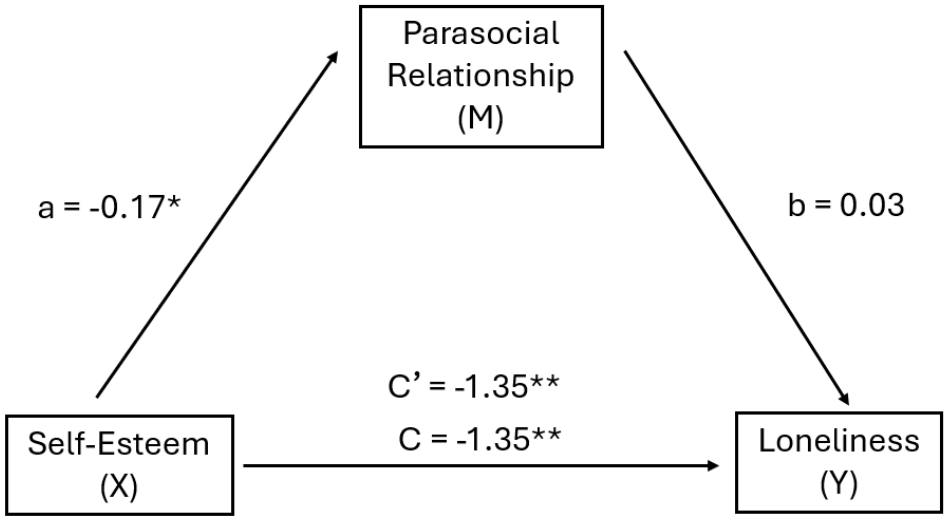
Main Analyses

Mediation Model (Research Question 1)

The mediation model was chosen to answer research question 1.The preliminary analyses indicate that there do not appear to be significant differences among the measures of interest across participant groups. Moreover, because the main variables are correlated with one another (as demonstrated in Table 1), the study's main analysis aimed to address whether parasocial relationships could mediate the relationship between self-esteem and loneliness. From this concept, assumption testing was carried out to establish if a mediation model could be used. Firstly, the variables all followed a continuous scale. Scatterplot analysis indicated that the variables shared a linear relationship, required for mediation analysis. The data does not demonstrate multicollinearity as its VIF statistic is 1.6, which is well within the normal range. And finally, there were no extraneous outliers that skewed the distribution of the data.

Figure 1

The Mediating Effect of Parasocial Relationships on Loneliness and Self-Esteem



The main analysis involved a mediation model as demonstrated in Figure 1. This mediation was done using Hayes' Process Model (Hayes, 2013). The goal of this

analysis was to answer the research question: *"Do parasocial relationships mediate the relationship between loneliness and self-esteem?".* This was to determine if the presence of a parasocial relationship could benefit the viewer by alleviating the negative outcomes of low SE on loneliness as previous literature has been inconsistent in this detail. As can be seen in Figure 1, the higher a participant's score on the self-esteem measure included in the study, the lower their API (parasocial) score was (a = -0.17, p = .03). Similarly, the higher a participant's score on the loneliness measure, the more intense their parasocial relationship with a fictional character appeared to be (b = 0.03, p = .51). However, this pathway was not significant. Finally, the relationship between self-esteem and loneliness was significant and indicates that the higher a participant's self-esteem, the lower their reported level of loneliness is (c' = -1.35, p < .01). The model's total and direct effects were found to be significant, but the indirect effect did not produce significant findings as the model contained zero within its confidence intervals (-.025 to .010). Therefore, results from this analysis indicate that parasocial relationships do not mediate the relationship between loneliness and self-esteem.

Exploratory analyses

Finally, we were interested in whether the different facets of parasocial relationship intensity and character investment might relate differently to television viewing motives. An exploratory analysis with Pearson's Correlation was conducted to answer research question 2. This is depicted in Table 3. Each subscale of the API (parasocial relationship scale) and the Television Motivation scale were highly related to one another. For example, the relationship between parasocial character identification and each of the television motivations was significant, except for the habit and entertainment motivations. This would indicate that the more a participant identifies with their parasocial character, the less likely they are to be motivated to watch television for entertainment or for habit, instead choosing to watch for information, companionship or escapism instead. Interest in a parasocial character was also

significantly correlated with each of the television motivations, indicating that the more invested a participant was in a parasocial character, the more likely they were to engage in television viewing for any of the five motivating factors. Correlations with the “Group” factor indicated that television motivation was largely related to information seeking, entertainment, companionship and escapism motivations. Finally, the “Problem” subscale indicates that if a participant is watching television to understand how their parasocial character handles problems, they are more likely to watch it for information as opposed to the other motivations. The correlation for entertainment and problem solving indicates that the more likely the participant is to watch it for problem solving, the less likely they are to watch for entertainment. Participants who watch for problem solving are also likely to watch for habit, companionship and escapism purposes but these are not as common as the information motivation.

Table 3

Descriptive Statistics and Correlations between Parasocial Relationships and Television Usage

Variable	*n*	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. API Identify	555	13.47	4.88	-								
2. API Interest	555	9.99	3.07	.11*	-							
3. API Group	555	16.09	4.23	.51**	.27**	-						
4. API Problem	555	8.49	3.67	.19**	.16**	.31**	-					
5. TV Habit	525	13.20	4.97	.03	.12**	-.00	.03	-				
6. TV Information	525	12.91	3.68	.12**	.16**	.20**	.10*	.21**	-			
7. TV Entertainment	524	5.06	1.91	.02	.16**	.12**	-.03	.22**	.18**	-		
8. TV Companion	525	8.23	3.59	.18**	.30**	.18**	.05	.44**	.23**	.14**	-	
9. TV Escapism	525	6.83	3.09	.19**	.19**	.18**	.07	.22**	.20**	.22**	.54**	-

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

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

Note: API refers to the Audience Persona Interaction Scale used in this study (Auter & Palmgreen, 2000). “TV Habit, Information, Entertainment, Companion and Escapism” refer to Viewing Motivation subscales (Rubin,1983).

Discussion

Mediation analysis was conducted to test if parasocial relationships could provide positive outcomes for the relationship between loneliness and self-esteem. The mediation model only provided a significant relationship between self-esteem and loneliness. There were no other significant pathways. This meant that mediation is not an adequate explanation for the relationship between these variables. According to the parasocial compensation hypothesis (PCH), parasocial relationships should have acted as a buffer towards negative outcomes (self-esteem and loneliness). Perhaps there may not have been a strong buffering effect, but studies such as Lim and Kim (2011) suggest that parasocial relationships may improve feelings of loneliness which is a finding I expected to see as well, but this was not observed in the current study.

It is possible that parasocial relationships cannot influence the relationship between self-esteem and loneliness on their own as there may also be undisclosed factors such as depression, age and real-world socialisation that may be confounding the model's effects. Unfortunately, the current study was also unable to reach conclusions about the direct impact of parasocial relationships on mental health outcomes though several correlations were observed. This could simply be because effects cannot be found in such small populations, or because no such benefits exist.

Past literature also reflects a lack of direct findings. For example, Zhang and Dong (2022) suggest that social support may buffer the effects of loneliness, but the current study (using parasocial support) did not find strong evidence of this. Derrick et al., (2009) also suggest that parasocial relationships could act as social surrogates and alleviate negative outcomes, but this was not seen in the current study. It appears that the current study was only able to determine that a relationship between parasocial engagement, loneliness and self-esteem exists, but not the direction that it takes. Overall, the current research methods employed in the field of parasocial research do not seem to be able to detect the impact parasocial relationships have on television

viewers. It appears that like previous research (Rubin et al., 1985 & Wang et al., 2008) parasocial relationships do tend to occur in individuals who are lonelier and have lower self-esteem than their peers but there does not seem to be a method of accurately surveying the impact this may have on mental health outcomes.

Although there were no conclusions about the potential buffering and compensation effects, the study was able to determine that loneliness and self-esteem were directly related to age, as older participants reported lower self-esteem and higher loneliness than younger participants. It is possible that older participants rely more on television for escapism, but this was not tested in the current study, nor has it been covered extensively in other studies, so future research should investigate this. Higher self-esteem was related to lower parasocial engagement and television being used purely for entertainment.

Finally, exploratory analyses were conducted to examine the existing data. These analyses specifically focused on television motivation and parasocial relationships. The main findings were largely related to investment with a parasocial character. Identification and level of engagement with a parasocial character were significant when a participant engaged in television viewing for escapism, companionship or habit. Other motivating factors such as entertainment were largely reserved for participants who were only invested in parasocial characters at the surface level. This is a novel finding, as previous research (aside from Rubin, 1983 where the scale originates) does not usually contain information on television engagement habits. More evidence for the parasocial compensation hypothesis may be gained if future studies also look at the main reasons for television engagement and whether a buffering effect may be present. By examining television motivation, more studies can determine if all television viewers use parasocial characters to compensate for inadequate social needs, or if they are engaging solely for entertainment.

It is possible that the PCH may not be the only theory that explains why people engage with fiction and television media. Perhaps it should be used in tandem with

another theory (such as Tsao, 1996) to conclude that while people use media as a means of escapism, it does not always occur due to failing social relationships. It may occur in tandem to existing social relationships as a means of relaxation, not compensation. Perhaps television viewing is beneficial for overall mental health maintenance and is simply one method of boosting low self-esteem when a real-world social relationship is not present.

I believe that the definition of compensation used in the PCH should be expanded to not only include individuals who engage with television due to social deficits, but those who use television to alleviate other forms of stressors, such as work or school related stress. This is also reflected in Tsao (1996) with the two definitions of the term. I believe that if the PCH had two definitions like Tsao's paradigm models, there would be more findings that demonstrate the nuances of television usage.

Regarding my own model, I believe that there may have been another variable that if accounted for, could have enabled me to find a stronger mediation between the variables I chose for my study. If I were to conduct this study again, I would have included more control variables (such as other mental health outcomes) to determine if the results of the compensation hypothesis are stronger when another variable is controlled for. It is possible that parasocial relationship effects are too small to be seen in large population samples even when other variables are controlled for. Maybe it is simply a phenomenon with an incredibly small effect size. More research should be done to establish the ways that media engagement can benefit viewers, even if it does not aid their self-esteem and loneliness. I believe that this field may be able to benefit socially anxious individuals, as some researchers do suggest that parasocial characters may be able to boost confidence in television viewers or neurodivergent people too (Derrick et al., 2009). Having parasocial characters who can navigate social situations that occur in the real world may allow for a greater understanding in new situations. For example, if a neurodiverse individual is unable to converse with a shop attendant, they may find new confidence in seeing one of their favourite characters

model a similar interaction on a television show. It is even possible that the parasocial character themselves may allow such persons to feel more confident in the interactions that they have in everyday life. By thinking similarly to the parasocial character, an anxious person may be able to put some of their anxiety aside to focus on their current activity, at least for a short time.

Strengths of the Current Study

The current study had several strengths in its design. Firstly, due to the use of social media advertising, the study was able to reach almost one thousand people around the world. Whilst only five hundred of those responses were complete enough to be used in data analysis, my study demonstrated that paid social media advertising is able to reach a larger range of people than other forms of advertising. Initial social media advertising was limited simply to my own social media platforms which did not generate many usable responses, but by utilising the advertising capabilities of a platform such as Facebook, the number of participants I initially needed (two hundred) was surpassed by almost four times as many participants. Secondly, because of the lack of criteria required for inclusion in the study (aside from age and language requirements), the study itself was incredibly diverse.

For example, the demographic statistics collected indicated that while a large majority of participants were European, there were several other minority populations that were a part of the study. The second and third most populated ethnicity groups were the Asian and Mixed ethnicity groups, accounting for a large percentage of the total participants. I believe that this is quite novel for the parasocial field as many of the studies previously mentioned in the literature do not have large total populations, nor do they have such diverse ones. Future research should also aim to be as inclusive as possible and not contain criteria that may only appeal to one ethnic group. Similarly, the findings for gender diversity are also unique to this study. While most of the newer studies (those completed in the 2010's to 2020's) have begun to include options for persons who do not identify within the typical gender binary, this study had close to

30% of its participants' gender identities fall outside of the typical categories provided in questions on gender identity. This is phenomenal as in the general population, non-gender conforming individuals make up close to 1-5% of those surveyed. Non-Binary participants were also 24.7% larger in presentation than the group of participants that identified as Male. I believe that this may be attributed to several factors such as: a lack of exclusion criteria that focused on gender (as television viewing is not a gendered behaviour), the anonymous nature of the survey (which may have helped people feel comfortable identifying themselves as Non-Binary) and finally, the fact that the survey was open internationally may have also contributed to such a high proportion of Non-Binary persons. If this survey had been limited to just New Zealand-based participants, the Non-Binary population would not be nearly as high as it is in the final study. Future research should also not exclude participants who fall into Non-Binary or non-gender conforming categories as the information they can provide on parasocial relationships is equally as important as those who conform to gender norms.

In regard to the findings seen in the exploratory analyses, the group section of the television motive scale provided interesting results. This aligns with the nature of the questions in this subscale, as they relate to interactions between the favourite character and other characters on their television show, as well as interactions the participant has in the real-world. This would suggest that participants who scored highly on the group subscale use television to "interact" with their parasocial character and see their television engagement as simply entertainment, not a habit.

Limitations/Future Directions

The current research was not without limitations. While the findings may allow for a broader understanding of the way parasocial relationships could benefit television viewers, the use of such a specific field of study may not allow for the results to be generalised to other forms of media. Television was chosen specifically as the media format due to its visual and more accessible nature, given the rise of streaming services and widespread coverage of television shows on social media. This means

the findings from this study may not be applicable to more niche areas of parasocial relationships, such as those with book characters who do not appear in a visual format. Perhaps some generalisability may exist between other forms of visual media, such as film or graphic novel-based parasocial relationships, but this has not been the focus of any research, yet. It is hard to say if similar results would be found in the film industry when compared to television, given the differences in technical production and character appearance in film.

It is entirely possible that parasocial relationships with film characters exist in parallel to those with television, but without further comparative analysis, it is hard to explain. Investigating parasocial characters that appear in both television and film media from the same franchise or property could bridge the gap between the two media. A fascinating domain of study could be the differences in parasocial relationships between multiple actors who have played the same character in different forms of media. Long-running franchises such as DC Comics' Batman have seen numerous actors playing the titular Dark Knight, which could provide interesting insight into how parasocial relationships for the same character change when the role is rebooted or recast. Similar analysis on a television scale could work for the BBC sci-fi show Doctor Who, where the titular role is recast every few years, but the character is still the same person, just with a new look.

Another dimension of research that would be hard to explore is the relationship, or lack thereof, that individuals with aphantasia may experience with fictional persons. Typically, parasocial relationships exist in the mental imagery of the character that the viewer can associate with their previous experiences of watching the media their character appears in. For someone without the ability to mentally imagine their character or connect with them based on a visual appearance, parasocial relationships may either not exist at all or exist in an augmented format. Future research could consider the potential relationships that may or may not exist for those persons and establish if parasocial relationships can exist in any other format.

Characters that regularly push the boundaries of their media also pose an interesting field of research. Notably, characters like Wade Wilson (aka Deadpool) or children's television characters such as Dora the Explorer, who are known for regularly speaking directly to their audience are unusual among the field of parasocial relationships. The original concept developed by Horton and Wohl implies that the relationship exists because of a perceived interaction between viewer and character, but characters that *"break the fourth wall"* circumvent this concept and may exist as stronger forms of parasocial relationships than their audience-unaware counterparts because they *are* aware of the viewer. The notion of a one-sided relationship is flipped on its head if the character themselves can acknowledge the presence of the viewer behind the screen.

Unusual Research Trends

A particularly unusual facet of the literature was the study completed by Eyal and Cohen (2006). Their study of parasocial break-up after the conclusion of the show *Friends* introduced an uncommon variable not seen in other parasocial research. The authors use a measure of perceived popularity of a favourite character as a factor that contributes to the loneliness and distress that a participant feels after the show's conclusion.

This branch of study has not been demonstrated in any of the other literature reviewed for the current study and is thought-provoking in terms of the possibilities it presents. For example, it could be that for other shows, the popularity ranking simply does not matter, or perhaps it demonstrates an inverse relationship instead. It is strange that this appears to be the only study of its kind that incorporates the perceived and actual rates of popularity for the character among participants. Future research should incorporate a measure of popularity to examine if popularity has a significant effect on the maintenance and formation of a parasocial relationship and not just the distress upon break-up.

(Para)Social Relationships and Stigma

Another area of the current research that requires more evidence is the impact that parasocial engagement may have on outside social relationships. For example, Hoffner and Cohen (2012) and Bond (2021) examined parasocial relationships and social outgroups, Ray and Husnu (2025) and Stamps and Sahlman (2021) both examined the role that parasocial contact may have in prejudice reduction and racial biases and finally, Lotun et al., (2022) examined the role of parasocial contact on mental health stigma. These studies all demonstrate the potential for parasocial relationships to enable better outcomes and contact between social groups. Their findings all demonstrate varying levels of prejudice reduction after exposure to a parasocial character. More research on this phenomenon needs to occur as it could provide a low-risk medium through which television viewers can be educated on their biases and taught how to reduce them. Unfortunately, none of these studies have established long-term improvements that stem from television engagement, so it is hard to know if participants kept these new mindsets or if they returned to their old biases.

Parasocial Relationships and Social Comparison

Another topic that does not seem to have been thoroughly researched is the relationship that may exist between parasocial relationships and body image. The existing research is unable to reach a consensus. For example, Eyal and Te'eni-Harari (2013) suggest that parasocial relationships perpetuate unrealistic body standards and are harmful for vulnerable populations (such as children or teenagers). However, research that involved young women did not suggest this and instead suggested that parasocial relationships generate satisfaction with body-image (Young et al., 2012). Research on young men suggests that parasocial relationships can moderate the negative effects of body image dissatisfaction, but only with a pre-existing parasocial relationship. If the men were exposed to an unfamiliar character, this buffering effect was not present (Young et al., 2013). Unfortunately, these studies do not include body

image scales that depict plus-size parasocial characters, so this is not representative of all types of bodies. Future research should include more diverse parasocial lineups to determine the true impact of parasocial engagement on body image.

Parasocial Defences

Finally, Keefer et al., (2024) claims that parasocial relationships may protect against mortality salience, or the fear of one's impending death. Ultimately the authors determined that parasocial relationships do not act as a buffer towards negative outcomes as they had thought. In their research they determined that parasocial relationships heightened mortality salience in participants and these relationships were unable to benefit viewers in this aspect. However, this may have been because they selected highly anxious individuals who were already aware of their mortality. Had this study been done on a different population, perhaps a more general selection of participants, the results could have indicated that parasocial relationships can protect against multiple types of negative outcomes.

Conclusion

Based on the research carried out in the study above, parasocial relationships may mediate the relationship between loneliness and self-esteem but it is difficult to obtain findings that demonstrate this. The current study was able to demonstrate that parasocial relationships occur more frequently in lonely and lower self-esteem individuals who engage in television more than their peers. While the current study did not reach any statistically significant conclusions, it has still contributed to the literature that has been conducted on television viewing and parasocial relationships. Through this study, it has been established that parasocial relationships may be related to viewer loneliness and self-esteem, but future research may explore this concept in more depth than the current study.

References

Ash, S., Greenwood, D., & Keenan, J. P. (2023). The neural correlates of narcissism: Is there a connection with desire for fame and celebrity worship? *Brain Sciences*, *13*(10), 1499. https://doi.org/10.3390/brainsci13101499

Auter, P. J., & Palmgreen, P. (2000). Development and validation of a parasocial interaction measure: The audience-persona interaction scale. *Communication Research Reports*, *17*(1), 79–89. https://doi.org/10.1080/08824090009388753

Baek, Y. M., Bae, Y., & Jang, H. (2013). Social and parasocial relationships on social network sites and their differential relationships with users' psychological well-being. *Cyberpsychology, behavior and social networking*, *16*(7), 512–517. https://doi.org/10.1089/cyber.2012.0510

Bernhold, Q. S., & Metzger, M. (2018). Older adults' parasocial relationships with favorite television characters and depressive symptoms. *Health Communication*, *35*(2), 168–179. https://doi.org/10.1080/10410236.2018.1548336

Bernhold, Q. S. (2019). Parasocial relationships with disliked television characters, depressive symptoms, and loneliness among older adults. *Journal of Applied Communication Research*, *47*(5), 548–570. https://doi.org/10.1080/00909882.2019.1679384

Bond, B. J. (2021). The development and influence of parasocial relationships with television characters: A longitudinal experimental test of prejudice reduction through parasocial contact. *Communication Research*, *48*(4), 573-593. https://doi.org/10.1177/0093650219900632

Brodie, Z. & Ingram, J. (2021). The dark triad of personality and hero/villain status as predictors of parasocial relationships with comic book characters. *Psychology of Popular Media*, *10*(2), 230-242. https://doi.org/10.1037/ppm0000323

Broom, T. W., Chavez, R. S., & Wagner, D. D. (2021). Becoming the king in the north: Identification with fictional characters is associated with greater self-other neural overlap. *Social cognitive and affective neuroscience*, *16*(6), 541–551. https://doi.org/10.1093/scan/nsab021

Chory-Assad, R. M., & Yanen, A. (2005). Hopelessness and loneliness as predictors of older adults' involvement with favorite television performers. *Journal of Broadcasting & Electronic Media*, *49*(2), 182–201. https://doi.org/10.1207/s15506878jobem4902_3

Data Reportal. (2025, March 3). *Digital 2025: New Zealand*. https://datareportal.com/reports/digital-2025-new-zealand

Derrick, J. L., Gabriel, S., & Tippin, B. (2008). Parasocial relationships and self-discrepancies: Faux relationships have benefits for low self-esteem individuals. *Personal Relationships*, *15*(2), 261–280. https://doi.org/10.1111/j.1475-6811.2008.00197.x

Derrick, J. L., Gabriel, S., & Hugenberg, K. (2009). Social surrogacy: How favored television programs provide the experience of belonging. *Journal of Experimental Social Psychology, 45*(2), 352-362. https://doi.org/10.1016/j.jesp.2008.12.003

Dibble, J. L., & Rosaen, S. F. (2011). Parasocial interaction as more than friendship: Evidence for parasocial interactions with disliked media figures. *Journal of Media Psychology: Theories, Methods, and Applications, 23*(3), 122-132. https://doi.org/10.1027/1864-1105/a000044

Dibble, J. L., Hartmann, T., & Rosaen, S. F. (2016). Parasocial interaction and parasocial relationship: Conceptual clarification and a critical assessment of measures. *Human Communication Research, 42*(1), 21–44**.** https://doi.org/10.1111/hcre.12063

Eyal, K., & Cohen, J. (2006). When good “friends” say goodbye: A parasocial breakup study. *Journal of Broadcasting & Electronic Media*, *50*(3), 502–523. https://doi.org/10.1207/s15506878jobem5003_9

Eyal, K., & Te'eni-Harari, T. (2013). Explaining the relationship between media exposure and early adolescents’ body image perceptions: The role of favorite characters. *Journal of Media Psychology: Theories, Methods, and Applications, 25*(3), 129–141. https://doi.org/10.1027/1864-1105/a000094

Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science, 18*(3), 233–239. https://doi.org/10.1111/j.1467-9280.2007.01882.x

Gleason, T. R., Theran, S. A., & Newberg, E. M. (2017). Parasocial interactions and relationships in early adolescence. *Frontiers in Psychology*, *8*, 255. https://doi.org/10.3389/fpsyg.2017.00255

Godman, H. (2024, September 30). *Do parasocial relationships fill a loneliness gap?* https://www.health.harvard.edu/blog/do-parasocial-relationships-fill-a-loneliness-gap-202409303074

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach.* The Guilford Press.

Hoffner, C. A., & Cohen, E. L. (2012). Responses to obsessive compulsive disorder on *Monk* among series fans: Parasocial relations, presumed media influence, and behavioral outcomes. *Journal of Broadcasting & Electronic Media*, *56*(4), 650–668. https://doi.org /10.1080/08838151.2012.732136

Horton, D., & Richard Wohl, R. (1956). Mass communication and para-social interaction: Observations on intimacy at a distance. *Psychiatry*, *19*(3), 215–229. https://doi.org/10.1080/00332747.1956.11023049

Iannone, N. E., McCarty, M. K., Branch, S. E., & Kelly, J. R. (2017). Connecting in the twitterverse: Using Twitter to satisfy unmet belonging needs. *The Journal of Social Psychology*, *158*(4), 491–495. https://doi.org/10.1080/00224545.2017.1385445

Keefer, L. A., Brown, F. L., Rothschild, Z. K., & Allen, K. (2024). A distant ally?: Mortality salience and parasocial attachment. *Omega: Journal of Death & Dying, 89*(3), 967-985. https://doi.org/10.1177/00302228221085173

Lim, C. M., & Kim, Y. (2011). Older consumers' TV home shopping: Loneliness, parasocial interaction, and perceived convenience. *Psychology & Marketing*, *28*(8), 763–780. https://doi.org/10.1002/mar.20411

Lotun, S., Lamarche, V. M., Samothrakis, S., Sandstrom, G. M., & Matran-Fernandez, A. (2022). Parasocial relationships on YouTube reduce prejudice towards mental health issues. *Scientific Reports, 12*(1), 1-13. https://doi.org/10.1038/s41598-022-17487-3

Lotun, S., Lamarche, V. M., Matran-Fernandez, A., & Sandstrom, G. M. (2024). People perceive parasocial relationships to be effective at fulfilling emotional needs. *Scientific reports*, *14*(1), 9986. https://doi.org/10.1038/s41598-024-60558-w

Madison, T. P., Porter, L. V., & Greule, A. (2016). Parasocial Compensation Hypothesis: Predictors of Using Parasocial Relationships to Compensate for Real-Life Interaction. *Imagination, Cognition and Personality*, *35*(3), 258-279. https://doi.org/10.1177/0276236615595232

Ministry of Health. (2025, November 19). *Methodology report 2024/25: New Zealand health survey.* https://www.health.govt.nz/publications/annual-update-of-key-results-202425-new-zealand-health-survey

Ministry of Social Development. (N.D). *Social connectedness and wellbeing.* https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/literature-reviews/social-connectedness-and-wellbeing.html

Möri, M., & Fahr, A. (2023). Parasocial interactions with media characters: The role of perceived and actual sociodemographic and psychological similarity. *Frontiers in Psychology*, *14*, 1297687. https://doi.org/10.3389/fpsyg.2023.1297687

Moss, S. A., Garivaldis, F. J., & Toukhsati, S. R. (2007). The perceived similarity of other individuals: The contaminating effects of familiarity and neuroticism. *Personality and Individual Differences, 43*(2), 401-412. https://doi.org/10.1016/j.paid.2006.12.008

Oliver, M. B., Bilandzic, H., Cohen, J., Ferchaud, A., Shade, D. D., Bailey, E. J., & Yang, C. (2019). A penchant for the immoral: Implications of parasocial interaction, perceived complicity, and identification on liking of anti-heroes. *Human Communication Research*, *45*(2), 169–201. https://doi.org/10.1093/hcr/hqy019

Pimienta, J. (2023). Towards an integrated and systematic theory of parasocial relationships: PSR as an attachment process. *Communication Research Trends, 42*(1), 4-20.

Rain, M., & Mar, R. A. (2021). Adult attachment and engagement with fictional characters. *Journal of Social and Personal Relationships, 38*(9), 2792–2813. https://doi.org/10.1177/02654075211018513

Ramasubramanian, S., & Kornfield, S. (2012). Japanese anime heroines as role models for U.S. youth: Wishful identification, parasocial interaction, and intercultural entertainment effects. *Journal of International and Intercultural Communication*, *5*(3), 189–207. https://doi.org/10.1080/17513057.2012.679291

Rarity, E., Leitao, M., & Rutchick, A. (2022). Identification with characters in parasocial relationships predicts sharing their personality traits. *Psychology of Popular Media*, *11*(2), 111-116. https://doi.org/10.1037/ppm0000389

Ray, I., & Husnu, S. (2025). Parasocial contact reduces anti-LGBTI+ prejudice via enhanced perspective-taking and lowered symbolic threat. *Psychology & Sexuality*, 1–18. https://doi.org/10.1080/19419899.2025.2505076

Rosaen, S. F., & Dibble, J. L. (2015). Clarifying the role of attachment and social compensation on parasocial relationships with television characters. *Communication Studies*, *67*(2), 147–162. https://doi.org/10.1080/10510974.2015.1121898

Rosenberg, M. (1979). *Conceiving the Self*. Basic Books.

Roy Morgan. (2025, August 12). *Disney+ and Amazon Prime in New Zealand show powerful growth in viewership of Subscription TV services since pandemic.* https://www.roymorgan.com/findings/9983-new-zealand-pay-tv-services-june-2025

Rubin, A. M. (1983). Television uses and gratifications: The interactions of viewing patterns and motivations. *Journal of Broadcasting*, *27*(1), 37–51. https://doi.org/10.1080/08838158309386471

Rubin, A. M., Perse, E. M., & Powell, R. A. (1985). Loneliness, parasocial interaction, and local television news viewing. *Human Communication Research*, *12*(2), 155–180. https://doi.org/10.1111/j.1468-2958.1985.tb00071.x

Russell, D., Peplau, L. A., & Ferguson, M. L. (1978). Developing a measure of loneliness. *Journal of Personality Assessment*, *42*, 290-294. https://doi.org/10.1037/t05974-000

Stamps, D. L., & Sahlman, J. (2021). Audiences' mediated contact with Black characters in scripted television and support for racialized social

issues. *Communication Studies*, *72*(5), 834–849. https://doi.org/10.1080/10510974.2021.1975140

Stats NZ–Tatauranga Aotearoa. (2023). *Wellbeing Statistics: 2023* (*updated 26 March 2025)* [Data Set]. https://www.stats.govt.nz/information-releases/wellbeing-statistics-2023/

Stein, J. P., Liebers, N., & Faiss, M. (2022). Feeling better...but also less lonely? An experimental comparison of how parasocial and social relationships affect people's well-being. *Mass Communication and Society*, *27*(3), 576–598. https://doi.org/10.1080/15205436.2022.2127369

Szcześniak, M., Bielecka, G., Madej, D., Pieńkowska, E., & Rodzeń, W. (2020). The role of self-esteem in the relationship between loneliness and life satisfaction in late adulthood: evidence from Poland. *Psychology Research and Behavior Management*, *13* 1201-1212. https://doi.org/10.2147/PRBM.S275902

Tefertiller, A., & Sheehan, K. (2019). TV in the streaming age: Motivations, behaviors, and satisfaction of post-network television. *Journal of Broadcasting & Electronic Media*, *63*(4), 595–616. https://doi.org/10.1080/08838151.2019.1698233

Tsao, J. (1996). Compensatory media use: An exploration of two paradigms. *Communication Studies*, *47*(1–2), 89–109. https://doi.org/10.1080/10510979609368466

Wang, Q., Fink, E. L., & Cai, D. A. (2008). Loneliness, gender, and parasocial interaction: A uses and gratifications approach. *Communication Quarterly*, *56*(1), 87–109. https://doi.org/10.1080/01463370701839057

Young, A. F., Gabriel, S., & Sechrist, G. B. (2012). The skinny on celebrities: Parasocial relationships moderate the effects of thin media figures on women's body

image. *Social Psychological and Personality Science, 3*(6), 659–666. https://doi.org/10.1177/1948550611434785

Young, A. F., Gabriel, S., & Hollar, J. L. (2013). Batman to the rescue! The protective effects of parasocial relationships with muscular superheroes on men's body image. *Journal of Experimental Social Psychology, 49*(1), 173-177. https://doi.org/10.1016/j.jesp.2012.08.003

Zhang, X., & Dong, S. (2022). The relationships between social support and loneliness: A meta-analysis and review. *Acta psychologica, 227*, 103616. https://doi.org/10.1016/j.actpsy.2022.103616

Appendix A: Ethics Approval Documents

(1) Provisional Approval Letter (Granted April 1, 2025)

Auckland University of Technology Ethics Committee (AUTEC)

1 April 2025

Ying Wang

Faculty of Culture and Society

Dear Ying

Ethics Application: 25/82 The Parasocial Hypothesis: How do our experiences with fictional worlds impact real world loneliness and self-esteem?

PROVISIONAL APPROVAL OF APPLICATION

This application was reviewed via the minimal risk pathway by the Auckland University of Technology Ethics Committee (AUTEC) and **provisionally approved** pending further information.

1. Provision of the references for the Questionnaires used;
2. Provision of the authorizing signature for section O.3 of the EA1 application;
3. Provide assurance that comments will be turned off on social media posts;
4. Remove the need for parental consent as there is no reason to assume that potential participants will lack the mental capacity;
5. Confirm that only supervisor to have access subsequent to findings and analysis. H7;
6. Confirm that data will not be held in Qualtrics for 6 years;
7. Confirm storage as per AUT data storage guidelines. H.9;
8. If data is held longer than 6 years then confirm how it will be stored in line with AUT data storage guidelines;
9. **Changes to the Advertisement:**
    a. Include name of researcher;
    b. Include it is student research;
    c. Include what participation involves and that the survey is anonymous;
10. **Changes to the Information Sheet:**
    a. Provision of a consistent estimate of time for participants to complete the survey;
    b. Remove the lifeline link as this research is low risk;
    c. Review the “Information about me section” to reflect the response to the data condition above;

11. Include the age screening question in the Qualtrics questionnaire that is described in C.3.5.7.

Responding to requests for further information

Provide a cover letter to respond to all outstanding ethical concerns. This includes addressing concerns raised in the application as the original answers in the application form should not be edited. **Do not resubmit your EA1 application** unless specifically directed to in the conditions.

Please track or highlight changes made to new versions of existing study documentation (Information Sheet, Consent Form, Advertisement etc). Both tracked and clean versions of updated documents should be provided when responding to a provisional approval.

The Committee is always willing to discuss with applicants the points that have been made.

When the conditions have been met, you will be notified of the full approval. Full approval is not effective until all the conditions have been met. Data collection may not commence until full approval has been confirmed. If these conditions are not met within six months, your application will be closed, and a new application will be required.

Please use the application number and study title in all correspondence with us. If you have any enquiries about this application, please contact us at ethics@aut.ac.nz.

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat

Auckland University of Technology Ethics Committee

Auckland University of Technology, Private Bag 92006, Auckland 1142, New Zealand. ethics@aut.ac.nz:
www.aut.ac.nz/researchethics

(2) - Final Approval Letter (Granted April 9, 2025).

Auckland University of Technology Ethics Committee (AUTEC)

9 April 2025

Ying Wang

Faculty of Culture and Society

Dear Ying

Re Ethics Application: **25/82 The Parasocial Hypothesis: How do our experiences with fictional worlds impact real world loneliness and self-esteem?**

Thank you for your responses to AUTEC's conditions.

Your ethics application has been approved for three years

until 8 April 2028. **Standard Conditions of Approval**

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC.
2. All public facing documents must have the AUTEC approval number and be of a high standard of spelling and grammar. Dates on the Information Sheet(s) and Consent Form(s) must be consistent.
3. Any amendments to the project must be approved by AUTEC prior to being implemented.
4. A progress report is due annually on the anniversary of the approval date.
5. A final report is due at the expiration of the approval period, or, upon completion of project.
6. Any serious or adverse events must be reported to AUTEC, this includes unforeseen issues that might affect continued ethical acceptability of the project.
7. AUTEC grants ethical approval only. You are responsible for obtaining management permission for access from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

The application number and title need to be referenced on all correspondence related to this project. All forms are available online http://www.aut.ac.nz/research/researchethics For any enquiries, please contact the Secretariat at ethics@aut.ac.nz

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat **Auckland University of Technology Ethics Committee**

Auckland University of Technology, D-88, Private Bag 92006, Auckland 1142, New Zealand. T: +64 9 921 9999 ext. 8316: E: ethics@aut.ac.nz: www.aut.ac.nz/researchethics

Appendix B

(A) – Research Materials used in Survey

Demographic questions

1. **Where do you reside?**
    a. New Zealand
    b. Rest of the World
2. **How would you describe your ethnicity?**
    a. New Zealand European/Pakeha
    b. Māori
    c. Pasifika
    d. European
    e. African
    f. Latin American/Hispanic
    g. Asian
    h. Middle Eastern
    i. Other (fill in box)
3. **How would you describe yourself? (gender)**
    a. Male
    b. Female
    c. Non-Binary/Third Gender
    d. Other (fill in box)
    e. Prefer not to say

Audience-Persona Interaction Scale (Auter & Palmgreen, 2000)

Scored on a 5-point Likert Scale (Strongly Disagree to Strongly Agree)

1. My favourite character reminds me of myself.
2. I have the same qualities as my favourite character.

3. I seem to have the same beliefs or attitudes as my favourite character.
4. I have the same problems as my favourite character.
5. I can imagine myself as my favourite character.
6. I can identify with my favourite character.
7. I would like to meet the actor who played my favourite character.
8. I would watch the actor on another program.
9. I enjoyed trying to predict what my favourite character would do.
10. I hoped my favourite character achieved his or her goals.
11. I care about what happens to my favourite character.
12. I like hearing the voice of my favourite character.
13. My favourite character's interactions are similar to mine with friends.
14. My favourite character's interactions are similar to mine with family.
15. My friends are like my favourite character.
16. I'd enjoy interacting with my favourite character and my friends at same time.
17. While watching show, I felt included in the group.
18. I can relate to my favourite character's attitudes.
19. I wish I could handle problems as well as my favourite character.
20. I like the way my favourite character handles problems.
21. I would like to be more like my favourite character.
22. I usually agreed with my favourite character.

UCLA Loneliness Scale (Russell et al., 1978)

Scored on 4-point Likert Scale from "*I never feel this way.*" to "*I often feel this way*."

1. I am unhappy doing so many things alone.

2. I have nobody to talk to.

3. I cannot tolerate being so alone.

4. I lack companionship.

5. I feel as if nobody really understands me.

6. I find myself waiting for people to call or write. ***Updated wording reads "message" instead of "write" in the version of the survey distributed to participants.***

7. There is no one I can turn to.

8. I am no longer close to anyone.

9. My interests and ideas are not shared by those around me.

10. I feel left out.

11. I feel completely alone.

12. I am unable to reach out and communicate with those around me.

13. My social relationships are superficial.

14. I feel starved for company.

15. No one really knows me well.

16. I feel isolated from others.

17. I am unhappy being so withdrawn.

18. It is difficult for me to make friends.

19. I feel shut out and excluded by others.

20. People are around me but not with me.

Rosenberg Self-Esteem Scale (Rosenberg, 1979)

Scored on 4-point Likert Scale from *Strongly Disagree* to *Strongly Agree.*

1. On the whole, I am satisfied with myself.

2. At times I think I am no good at all.

3. I feel that I have a number of good qualities.

4. I am able to do things as well as most other people.

5. I feel I do not have much to be proud of.

6. I certainly feel useless at times.

7. I feel that I'm a person of worth.

8. I wish I could have more respect for myself.

9. All in all, I am inclined to think that I am a failure.

10. I take a positive attitude toward myself.

Television Motives Scale (Rubin, 1983)

Scored on 5-Point Likert Scale ranging between "*Not at all like me." To "Exactly Like Me."*

1. Because it relaxes me.
2. Because it allows me to unwind.
3. Because it's a pleasant rest.
4. So I won't be alone.
5. When there's no one else to talk to or be with.
6. Because it makes me feel less lonely.
7. Just because it's there.
8. Because I just like to watch.
9. Because it's a habit, just something I do.
10. When I have nothing better to do.
11. Because it passes the time away, particularly when I'm bored.
12. Because it gives me something to do to occupy my time.

13. Because it entertains me.
14. Because it's enjoyable.
15. Because it amuses me.
16. Because it's something to do when friends come over.
17. So I can talk with other people about what's on.
18. So I can be with other members of the family or friends who are watching.
19. Because it helps me learn things about myself and others.
20. So I can learn how to do things which I haven't done before.
21. So I could learn about what could happen to me.
22. Because it's thrilling.
23. Because it's exciting.
24. Because it peps me up.
25. So I can forget about school or other things.
26. So I can get away from the rest of the family or others.
27. So I can get away from what I'm doing.

Appendix B – Participant Information Sheet

Date that data collection will start:

April 10th 2025

Project Title

The Parasocial Hypothesis: How do our experiences with fictional worlds impact real-world loneliness and self-esteem?

Hello there!

My name is Lily File, and I am a Master's student at Auckland University of Technology, New Zealand. I am currently working on research that involves fictional characters and parasocial relationships. This information sheet is an invitation to participate in my research study. This study is being carried out as a requirement for completion of my master's thesis.

What is the purpose of this research?

This research aims to explore parasocial relationships, or the relationships we have with our favourite fictional characters. Some research suggests that parasocial relationships can act as a form of social support and induce benefits, but most do not come to a clear result. It is hoped that my research can enable a greater understanding of the benefits that fictional attachments can have on real-world social situations. The findings of this research may be used for academic publications and presentations.

How was I identified and why am I being invited to participate in this research?

You have been identified for this research because you responded (by following the link) to the advert I shared on social media or the posters around AUT campus. If you're over the age of 16 and are familiar with English, I invite you to take part in this research around your favourite fictional television character.
No identifying information will be requested by the study. Participation will be completely anonymous.

How do I agree to participate in this research?

To agree to take part in my research, all you need to do is press the button below that will take you to the survey. This survey is voluntary, so you choose whether or not you wish to participate. You are free to exit the survey at any time if you no longer want to participate. Simply exit the browser window you have the survey open on. Unfortunately, if you withdraw partway through the survey, your responses cannot be deleted as I will not know which response belongs to you.

Prize Draw

After completing the survey, if you like, you can choose to enter a random prize draw for one of 5 $20 iTunes vouchers. Simply click the link and you will be directed to another survey where you can enter contact details. Entry into the draw is not linked to your responses to this survey, so I will not be able to identify you in any way. Contact information (if given) will be destroyed once the prizes have been drawn.

What will my participation involve?

All you will need to do is fill in the survey if you want to participate. There will be four questionnaires about loneliness, self-esteem and parasocial relationships (i.e., – your relationship with your favourite television character) and the reason why you choose to watch television. I will not be asking for any identifying information (unless you want to enter the separate prize draw) so your participation will remain anonymous.

What are the benefits?

This study will add to the broad field of parasocial relationships by investigating if these relationships can provide positive outcomes for those who engage in them. This will be greatly beneficial to participants and the researcher as it allows for an in depth understanding of the benefits of television watching. The results will also contribute to completion of my postgraduate qualification.

What are the costs?

The survey will take 10 minutes of your time to complete after you read through this information sheet.

Will the results of the study be published?

Yes. The results of my research will be published in a *Masters' Thesis.* This thesis will be available to the general public through the AUT library. The results may be published in peer-reviewed, academic journals. But, you will not be identifiable in any publication*.*

What are the discomforts and risks?

The study is low risk, so participants may only experience a minor discomfort with the contents of the survey.

How will these discomforts and risks be alleviated?

If there are any concerns with the research, participants are advised to contact the researcher.

What will happen to information about me?

The information collected in this study (aside from the separate survey draw pool unconnected to the study data) will remain completely anonymous. Data will only be used for the purposes of understanding the effects of parasocial relationships. Qualtrics (the survey platform) does not track IP addresses or link survey responses back to any personal information. The survey data will be removed from Qualtrics after the three-month data collection period. This will be transferred to Onedrive for storage. Data will be anonymous, so it will be stored indefinitely. Data will not be sold to other companies.

What opportunity do I have to consider this invitation?

The survey will be open for three months of data collection, so you have any time between May 1st and August 31st 2025 to complete it.

Will I receive feedback on the results of this research?

If you are interested in the results of my research, I will be providing a URL (https://docs.google.com/document/d/1w0djwcvE2Z3G6SnxC4zEoZYP1b1ceJLeFczQk4bNwIA/edit?usp =sharing) that will contain a one-page document of the findings at the end after the project has completed.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, *Dr. Ying Wang* *y.wang@aut.ac.nz*

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, *ethics@aut.ac.nz*, (+649) 921 9999 ext 6038.

Who do I contact for further information about this research?

Please keep this Information Sheet for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Lily File:

zhr7194@autuni.ac.nz

Project Supervisor Contact Details:

Dr Ying Wang y.wang@aut.ac.nz

Dr Jay Wood jay.wood@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on *9th April 2025, approval was granted*, AUTEC Reference number *25/82*.