

Parasocial Interactions, Intolerance of Uncertainty and Loneliness

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ABSTRACT

Given the rise of media and internet culture, parasocial interactions and the subsequent relationships they might lead to have drastically increased. This accretion in the framework of the pandemic demands a deeper exploration of the other factors that may have an impact on the nature and number of these interactions. This research study aims to understand the influence parasocial interactions, intolerance of uncertainty and loneliness have on each other in young adults who live in Mumbai and Bangalore, with the objective of addressing the research gap in the age group and the Indian context. This study uses a quantitative approach and the data sample includes 257 participants. The Celebrity-Persona Parasocial Interaction Scale, Intolerance of Uncertainty short scale (IUS-12) and UCLA Loneliness Scale are used to assess the variables, which were then analysed using Statistical packages for social sciences (SPSS). The findings indicated that Parasocial Interactions have a significant relationship with Intolerance of Uncertainty, but not Loneliness.

Keywords: *Parasocial Interactions, Loneliness, Intolerance of Uncertainty, Young adults, Parasocial Relationships, Anxiety*

Parasocial interactions refer to one-sided relationships between an individual and a media figure or persona, where the individual perceives a sense of connection or relationship with the media figure (Horton & Wohl, 1956). The concept “parasocial” has been established in the last several decades, in studies for media communication and literature. Horton & Wohl (1956) understood parasocial interaction as a “simulacrum of conversational give and take”, that takes place between users and mass media performers. parasocial interactions remain to be asymmetrical in nature when they exist in the sphere of media related interpersonal interactions. (Schramm, 2008). Although this topic had potential in the field of psychology, the implications of parasocial interactions had received very little consideration from psychologists until the 1980s, when Alan Rubin and other researchers chose to explore the concept through the lens of communication sciences. Studies since, have reflected that repeated parasocial interactions and thereby their built relationships can evolve in a way people begin to view their mediated interactions as “real relationships” (Stern, Russell, & Russell, 2007).

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The feelings due to parasocial interactions are simulated through carefully constructed mechanisms, such as verbal and nonverbal interaction cues, that can be consistently presented over multiple encounters in order to create trust and a sense of reliability. (Labrecque, 2014).

Research has shown that parasocial interactions can provide a sense of social support and companionship for those feeling lonely, and may also serve as a form of distraction from the stress and uncertainty of the current situation. In terms of parasocial interactions, research has shown that individuals who engage in these types of relationships are more likely to experience feelings of loneliness and social isolation. Intolerance of uncertainty (IU) and parasocial interactions are two distinct but related constructs in psychology. It is possible that parasocial interactions may serve as a means of coping with uncertainty and reducing anxiety in some individuals. For example, individuals who engage in parasocial interactions may find comfort in the predictable and controllable nature of these relationships, as the outcome of these interactions is less uncertain than real-life relationships (Giles, 2002).

Parasocial interactions have become increasingly important for many people as a way to cope with feelings of loneliness and boredom during the pandemic. The pandemic has resulted in social distancing measures and limited opportunities for face-to-face interactions, leading to a heightened need for social connection. However, the potential impact of parasocial interactions on intolerance of uncertainty is still unclear. Some studies have found that parasocial interactions can provide a sense of predictability and stability, reducing intolerance of uncertainty, while others have suggested that they may increase it. The COVID-19 pandemic has intensified feelings of uncertainty and stress, leading to an increase in intolerance of uncertainty and loneliness due to the isolation.

Parasocial interactions are often seen as a form of escapism from real-life relationships and provide a sense of social support and companionship for those feeling lonely. Research has shown that parasocial interactions can have positive effects on loneliness, as they can provide a source of social connection and a distraction from feelings of isolation and boredom.

However, there's also a concern that parasocial interactions may perpetuate loneliness by replacing real social relationships with superficial ones. While parasocial interactions may provide temporary relief from loneliness, they do not replace the deep emotional connection and support that come from face-to-face social interactions. In fact, excessive parasocial engagement may lead to further feelings of loneliness and isolation, as people may become more disconnected from their real-life social networks. Additionally, it has been found that parasocial interactions can lead to unrealistic expectations and disappointment when the media figure does not fulfil the emotional needs that have been placed on them. It's important to note that parasocial interactions should not be seen as a replacement for meaningful human connection and relationships, but rather as a complementary form of social interaction. The relationship between loneliness and intolerance of uncertainty is complex and bidirectional. For example, loneliness can lead to an increased intolerance of uncertainty, as people who feel socially isolated may feel more vulnerable and uncertain about their place in the world. At the same time, high intolerance of uncertainty can increase feelings of loneliness, as people who are anxious and stressed in uncertain situations may have difficulty forming and maintaining close social relationships. Parasocial interactions, intolerance of uncertainty, and loneliness are complex and interrelated concepts that can

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have a significant impact on mental health and well-being. It is important to understand how these factors interact and to seek help if necessary to promote positive mental health.

Intolerance of uncertainty (IU) refers to an individual's discomfort or anxiety in situations where the outcome is uncertain or unpredictable (Carleton, Collimore, & Asmundson, 2010). The concept of IU has been studied in a range of different cultural and linguistic contexts, making it a widely researched area in psychology. A deeper understanding of IU has important implications for the development of interventions aimed at reducing stress, anxiety, and depression in individuals. The research in India suggests that IU is a significant contributor to mental health difficulties in the Indian population, and that it is an important area for further exploration and intervention (Suhas et al. 2021). The IUS is a self-report measure that assesses an individual's level of IU and has been widely used in various studies (Carleton, Collimore, & Asmundson, 2010). Results from research using the IUS have consistently shown that IU is a multi-dimensional construct, with several underlying dimensions contributing to an individual's level of IU (Brosschot, Verkuil, & Verloop, 2006). These dimensions have been explored and discerned to be influenced by various factors. Studies have also explored the relationship between IU and other factors, including attachment style, cognitive dissonance, personality traits, parasocial interactions, etc.

Intolerance of uncertainty (IU) and parasocial interactions are two distinct but related constructs in psychology. It is possible that parasocial interactions may serve as a means of coping with uncertainty and reducing anxiety in some individuals. The pandemic seems to be receding, and the lessons learnt from these last few years would keep us prepared for any future uncertainties and be able to tolerate them, and the parasocial interactions will have some preventive and promotive effects on mental health (Suhas et al., 2019). Thus, examining this relationship in a post pandemic scenario that we live in seems essential.

However, the potential impact of parasocial interactions on intolerance of uncertainty is still unclear. Some studies have found that parasocial interactions can provide a sense of predictability and stability, reducing intolerance of uncertainty, while others have suggested that they may increase it. Loneliness and intolerance of uncertainty are two interconnected experiences that can have a significant impact on well-being and quality of life. The relationship between loneliness and intolerance of uncertainty is complex and bidirectional. For example, loneliness can lead to an increased intolerance of uncertainty, as people who feel socially isolated may feel more vulnerable and uncertain about their place in the world. At the same time, high intolerance of uncertainty can increase feelings of loneliness, as people who are anxious and stressed in uncertain situations may have difficulty forming and maintaining close social relationships. Understanding the complex relationship between these two concepts can help inform interventions aimed at reducing loneliness and promoting well-being in the face of uncertainty.

Loneliness is defined as a distressing feeling that accompanies the perception that one's social needs are not being met by the quantity or especially the quality of one's social relationships. (Sorenson, 2001) It's become a growing concern in India, as urbanisation and modernization lead to changes in social structures and relationships. Loneliness is a subjective experience that occurs when a person perceives a discrepancy between their desired and actual social relationships. It has been linked to a range of negative outcomes, including depression, anxiety, and even increased mortality.

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Research has shown that parasocial interactions can have positive effects on loneliness, as they can provide a source of social connection and a distraction from feelings of isolation and boredom. However, there's also a concern that parasocial interactions may perpetuate loneliness by replacing real social relationships with superficial ones. While a study showed that parasocial interactions were positively associated with a number of positive outcomes, including increased feelings of social connectedness and reduced feelings of loneliness. The results also indicated that parasocial interactions were a meaningful source of social support for individuals, particularly those who reported feeling socially isolated (Gleason, 2017), they do not replace the deep emotional connection and support that come from face-to-face social interactions. In fact, excessive parasocial engagement may lead to further feelings of loneliness and isolation, as people may become more disconnected from their real-life social networks. Additionally, it has been found that parasocial interactions can lead to unrealistic expectations and disappointment when the media figure does not fulfil the emotional needs that have been placed on them.

Parasocial interactions, intolerance of uncertainty, and loneliness are complex and interrelated concepts that can have a significant impact on mental health and well-being. It is important to understand how these factors interact and to seek help if necessary to promote positive mental health. Given the research that has been referred to for review of literature, parasocial interactions and intolerance of uncertainty and loneliness are primarily studied in the older generation. As the concept of parasocial interactions has evolved to the current times, the population that is most impacted by the pandemic and is the most exposed to the internet (where most parasocial interactions are facilitated) this study aims to examine the results with this population due to the relevance of the variables to it.

Need for study

The formation of hierarchical parasocial relationships may be tied to identity development while egalitarian parasocial relationships may lead to autonomy growth through the identification with a desirable and admirable media figure (Gleason et al., 2017). These relationships are elemental to one's growth and development, thus exploring this topic in the context of young adults in the age we live in becomes vital.

Colliander and Dahlen (2011) studied the impact of brand promotion through social and traditional digital media, focusing on blogs and online magazines. Their research found that blogs resulted in a higher purchase intention, due to a high level of parasocial interaction between authors and readers. This research contributes to the idea that parasocial interactions and relationships through the decades began to deviate from the traditional media like radio, television and film. Given how the nature of these interactions has evolved, assessing their impact on psychological factors can be an avenue to explore in this field of study.

The pandemic seems to be receding, and the lessons learnt from this last few years would keep us prepared for any future uncertainties and be able to tolerate them, and the parasocial interactions will have some preventive and promotive effects on mental health. (Suhastha et al., 2019) Thus examining this relationship in a post pandemic scenario that we live in seems essential.

People who are lonely, who lack and devalue face-to-face communication (Duck et al., 1994; Hawken et al., 1991), have been found to turn to the media to meet their social-compensation needs such as finding companionship, passing time, and seeking escape (Finn

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& Gorr, 1988). In an age where social media relationships and validation has become increasingly important, assessing the influence these variables may have on each other may also yield interesting results.

The most common population groups that develop parasocial relationships are adolescents (Jarzyna, 2020). Given the research that has been referred to for review of literature, parasocial interactions and intolerance of uncertainty and loneliness are primarily studied in the older generation. As the concept of parasocial interactions has evolved to the current times, the population that is most impacted by the pandemic and is the most exposed to the internet (where most parasocial interactions are facilitated) this study aims to examine the results with this population due to the relevance of the variables to it.

METHODOLOGY

The study uses the Correlational Research Design to determine the prevalence/influence the parasocial interactions, intolerance of uncertainty and loneliness variables have on each other. The relationships between these variables have been observed to be directly proportional to each other based on the recent research. This study utilised the online survey methodology by using Google forms which were circulated on social media platforms and also collected in person, online via a QR code for the form.

Hypotheses

- H01: There is no significant relationship between parasocial relationships and loneliness
H02: There is no significant relationship between parasocial relationships and intolerance of uncertainty
H03: There is no significant relationship between loneliness and intolerance of uncertainty
H04: there is no significant influence between parasocial interactions, intolerance of uncertainty and loneliness.

Tools for the study

Celebrity-Persona Parasocial Interaction Scale

The Celebrity-Persona Parasocial Interaction Scale (CPPI scale) created by Bocarnea and Brown (2007) is a self-measure tool that includes 20 items, with a 5 point likert scale. Furthermore, minor editing allows the instrument to be adapted to the celebrity or media persona of interest. The reliability of the CPPI is similar to that of other parasocial interaction scales, producing Cronbach coefficient alpha that typically range from .80 to .90.

The criterion-related validity of the CPPI, that is, its effectiveness to predict theoretically hypothesised outcomes, is good. As noted earlier, factor analysis of CPPI items reveals that parasocial interaction can be validly measured as a single conceptual variable.

Intolerance of uncertainty Scale

The intolerance of uncertainty short scale (IUS-12) was created by Carleton, Norton, and Asmundson in 2007. Participants rate items on a 5-point Likert scale. Cronbach's alpha was 0.88 for all 12 items of the scale, 0.79 for the Prospective IU subscale, and 0.86 for the Inhibitory IU subscale. None of the items had a corrected item-total correlation (CITC) lower than 0.40. (Kretzmann & Gauer, 2020)

UCLA LONELINESS SCALE (VERSION 3)

The UCLA Loneliness scale was created by Daniel Russell, Letitia Peplau, and Mary Ferguson in 1978. Through the years the test evolved and adapted, the third version was amended by Daniel Russell. A self-report measure that consists of 20 items. Cronbach

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Alpha for was found to be .92. Internal reliability of each factor was calculated and is as follows: factor 1 Cronbach Alpha is.78, factor 2 Cronbach Alpha is.64, factor 3 Cronbach Alpha is.40, and factor 4 Cronbach Alpha is.48.

Procedure of the study

The data for the research study was collected from young adults. The collection of data used google forms, which was created and circulated. There were 52 questions, including 20 questions from the questionnaires, CPPI and Loneliness Scale and 12 questions from the IUS-12. There were also 11 questions to collect the sociodemographic details. The form takes 5-15 minutes to respond to. The data collection was followed by analysis using the IBM SPSS software.

Statistical Techniques

The statistical techniques used to analyse the data were the Pearson's, ANOVA and Linear regression Analysis. In addition, the IBM SPSS software analysed data for inferential statistics and mean & standard deviation for descriptive statistics.

Ethical Consideration

The respondents' names were not collected, thus maintaining their anonymity. Participants also received an explanation of the purpose of the study. No potential dangers or risks were involved with the study as all data was collected through an online form.

RESULTS

Table 1 Relationship between parasocial interactions, intolerance of uncertainty and loneliness among young adults

Variables	M	SD	PS	IUS	LON
PS	57.393	13.528	1	.232*	-.030
IUS	36.903	9.178		1	.046
LON	50.31	4.452			1

* $p < .05$

Table 1 displays the relationship between parasocial interactions, intolerance of uncertainty and loneliness among young adults. The relationship between parasocial interactions and loneliness is found to be as low negative and statistically insignificant ($r = .030$, $p < .005$). Hence, H_{01} was accepted. This result was not entirely in line with studies such as that of Dhanda, (2011), which was able to discern that parasocial interactions with characters in media can be a maladaptive coping mechanism for loneliness. Thereby implying that loneliness and parasocial interactions have a positive correlation. The relationship between parasocial interactions and intolerance of uncertainty is found to be statistically significant ($r = .232$, $p < .005$). This aligns with the research conducted by Suhas et al. (2021) that underscores the increase in media consumption due to isolation experienced during the pandemic that led to higher levels of intolerance in uncertainty in the general population may lead to the development of a higher amount of parasocial interactions. Hence, H_{02} was rejected.

The relationship between parasocial interactions and loneliness is found to be as statistically insignificant ($r = .046$, $p < .005$). Hence, H_{03} was rejected. This does not align with a study conducted by Parlapani et al. (2020) stated that participants living alone showed higher levels of loneliness. Intolerance of uncertainty was shown to modulate levels of loneliness i.e. these variables clearly shared a significant relationship in the context of previous research.

Table 2 Regression in Parasocial Interactions, Intolerance of Uncertainty and Loneliness

Model	Unstandardised Coefficients		β	t	p
	B	Std. Error			
(Constant)	57.236	13.456		4.254	.000
IUS total	.347	.090	.236	3.862	.000
Lon total	-.251	.262	-.058	-.957	.339

Dependent variable is parasocial interactions.

A multiple linear regression was calculated to predict Parasocial Interactions based on Intolerance of Uncertainty and Loneliness. A significant regression equation was found ($F(2,254)=7.702$, $p<0.001$), with an R^2 of .057.

Participants predicted that parasocial interactions are equal to $57.236 - .347 + (-.251)$, where intolerance of uncertainty and loneliness were measured by their total scores. The participants parasocial interactions 0.37 and .251 for intolerance of uncertainty and loneliness scores respectively. Only intolerance of uncertainty was a significant predictor of parasocial interactions. Thus, H_{04} is rejected as there is a significant difference in parasocial interactions in the relationship between parasocial interactions and their influence on loneliness and intolerance of uncertainty. Given the limited research done on these variables, there was no relevant data to neither support nor reject these findings.

CONCLUSION

The study's primary goal was to investigate the link between parasocial interactions, intolerance and loneliness while also looking for differences that may appear due to sociodemographic details like age, gender, current living status, relationship status, family type & occupation. A significant relationship between intolerance of uncertainty and parasocial interactions was found. This would mean that an increase in one variable causes an increase in the other.

Implications

The research conducted regarding parasocial interactions, intolerance of uncertainty and loneliness becomes more prevalent given the rise of the internet and its role as a facilitator of parasocial interactions, along with the pandemic as a precipitating factor in the observed rise in loneliness and intolerance of uncertainty. While parasocial interactions have been mostly studied in the context of media and consumer behaviour, this factor can be vital in the field of psychology as well. These interactions and the subsequent relationships they form not only influence interpersonal relationships but also one's view of self and the world. This study adds to the existing literature when studying parasocial interactions, loneliness and intolerance of uncertainty and their influence on each other, this addition hints at future areas of research, recommendations and even the development of suitable strategies to decrease any potential negative influence these variables may have on one's mental health.

Limitations of study

There were certain limitations which were recognised while doing this study. There is also limited research with overlap of these variables and on parasocial interactions in general, especially in the context of the field of psychology. The scales were also formed keeping the western culture in mind and the PSI scale can be considered slightly outdated as well.

Suggestions for future studies

The future studies could emphasise on including a larger sample size, having a mixed design approach by making use of interviews from the participants for in depth information. Exploring parasocial interactions with an updated and adapted version of the scale in an Indian context may also help paint a clearer picture of the current scenario as well. The future studies could also use a longitudinal approach in order to gain a better understanding of how parasocial interactions evolve into relationships.

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Conflict of Interest

The author(s) declared no conflict of interest.

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