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The Relationships Between Television Viewing Behaviors, Attachment, Loneliness, Depression, and Psychological Well-Being

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**The Relationships between Television Viewing Behaviors,
Attachment, Loneliness, Depression, and Psychological Well-Being**

An Honors Thesis submitted in partial fulfillment of the requirements for Honors in
The Department of Psychology.

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ABSTRACT

With the rise in streaming products such as Netflix and Hulu, there is a need to
investigate the new trend of "binge-watching" television programs. Though this
phenomenon has been pondered widely in the popular media sphere, little, if any,
psychological research has investigated this phenomenon. The present study investigated
college students' television-viewing behaviors, including binge-watching television,
television affinity, and television-viewing motivations, and assessed the relationships
between these television-viewing behaviors and relationship attachment, loneliness,
depression, and psychological well-being. Participants completed several measures,
including the Experiences in Close Relationships: Revised (ECR-R), the UCLA
Loneliness Scale (Version 3), the Center for Epidemiologic Studies Depression Scale
(CES-D), Ryff's Psychological Well-Being Scale, the Television Viewing Motives Scale,
the Television Affinity Scale, and items created by the current researcher to measure
television viewing habits and binge-watching behaviors. Results showed significant
positive associations between binge-watching television and attachment anxiety and
depression. Results also showed that binge-watching behaviors were positively associated
with television affinity, instrumental TV viewing motives, and ritualistic TV viewing
motives. These results contribute to our understanding of the psychological correlates of
television viewing behaviors, and are relevant in today's world with the increased use of
television and movie streaming forums such as Netflix, Hulu, and Amazon Instant Video.

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In the past, people endured the suspense of waiting a week until the next episode of their favorite television shows aired. Today, this suspenseful waiting is becoming less and less of a reality. Many college students will sit down in front of a TV or computer screen for hours at a time and watch episode after episode, season after season, of easily-accessed programs, rather than having to wait a week for the next episode to come onto television. One individual commenting for the *Washington Post* noted his observation of the change in television-viewing culture, stating that once-mocked "couch potatoes" are now considered more of a norm, due to the flexible nature of streaming shows so that one might complete both homework *and* a whole season of a television program (Eidler, 2011).

In a *USA Today* article by Susannah Griffee (2013) noting the current trend of binge watching television programs, interviewee Andrew Goldman, HBO/Cinemax vice president of program planning and scheduling and adjunct professor at the Kanbar Institute of Film and Television at New York University, noted that, "college students are more likely to binge watch than adults because they are not set to regular schedules or busy spending time with spouses or children." Two other individuals cited in the article indicated that it is the immediate satisfaction associated with binge watching television that incites this behavior. According to a 2013 Nielsen study, consumers' usage of Netflix was 38% in 2013 compared to the 31% in 2012, Hulu usage increased from 12% in 2012 to 18% in 2013, and Amazon Prime Instant Video nearly doubled in usage from 7% in 2012 to 13% in 2013. With the recent increase in the number of people viewing

TV shows and movies on streaming sites such as Hulu, Netflix, and Amazon Instant Video that make available whole seasons of a show at one time, the easy accessibility to programs and the consequences associated with this is a subject of relevance in today's world. Shuhua Zhou, a professor interviewed with The University of Alabama's *The Crimson White*, noted the negative implications of the word "binge," suggesting that this new trend may have harmful effects on one's body as well as interfere with one's daily life (Linville, 2013). Many writers liken this recent trend to an addiction, one stating he would stay up into the late hours of the evening, choosing "'just one more' hit" over the rest necessary for the tasks of the next day, another likening binge viewing to an eating disorder – lying about her whereabouts and always wanting more, even wishing her husband would go on a business trip so she could shamelessly binge on her favorite programs (Hsu, 2014; Willens, 2013).

Hsu (2014), an author for the Wall Street Journal cited self-help techniques suggested by experts like Charlie Rubin, area head of television writing at Tisch School of Arts, and Roy Baumeister, a psychologist at Florida State University, such as stopping the episode during the side characters' story before the episode returns its focus to the main character, disabling the ever-so tantalizing auto-play feature, eating food to replenish energy so that one can make better decisions related to self-control, or even opt to have the Wi-Fi shut down on a specific schedule. Other sources mention not only the negative consequences related to the physical inactivity associated with binge watching television, but also its possible effects on mood, including feelings of depression and emptiness, feelings of "withdrawal" at the close of a season or program, and emotional exhaustion after all of the highs and lows of each episode (Smith, 2014; Ward, 2014;).

Though there are many arguments that appear to be against the trend of binge watching television, some suggest it is not all bad. For instance, Willens (2013) noted the social aspect of binge watching, mentioning her "binge-bonding" sessions with peers, and even suggesting that it has become the new "date night." She states that for her, cuddling on the couch with her husband and Walter White is far more romantic than sitting through trailers to see a movie or straining to hear her partner in a busy restaurant. She also mentions the competitive aspect of binge watching television – that feeling of inferiority when you are "behind" everyone in a popular program, or that satisfying feeling of behind caught up or ahead of her peers in episodes. Bill Ward (2014) also suggests that the social aspect of binge watching stems from social pressure, the "need to 'keep up or catch up.'" Soojung-Kim Pang (2014) of *The Independent* writes that binge watching television might be a way for people to exercise intense focus in protest of the technology-led attention deficit of society today. He likens it to other "restorative" experiences like walking in the park or reading a novel, experiences that one can use to escape and recharge, so to speak.

The purpose of the current research was twofold. The first purpose was to describe current television viewing behaviors in a sample of undergraduate college students. This included an assessment of the frequency of binge-viewing television. For the purposes of this research, binge-viewing is defined as viewing many episodes of a program in a single day (Griffee, 2013; Linville, 2013). We also assessed the relationships between binge-watching television, motives behind watching television, one's affinity associated with viewing television programs, and other television-viewing behaviors typical of the average university student. The second purpose of the current

research was to assess the relationships between television viewing behavior and loneliness, attachment, depression, and psychological well-being, to observe whether television viewing behavior was associated with positive or negative personal and interpersonal factors. Due to the paucity of psychological research on the topic of television viewing behaviors, the current research is an exploratory, descriptive study intended to assess the relationships between attachment, loneliness, depression, psychological well-being, and television viewing motives, affinity, and habits.

Parasocial Relationships

Previous research has shown that many people form one-way parasocial relationships with media characters that mirror aspects of actual social relationships. For example, Sanderson (2009) found that fans of the popular musical group New Kids On The Block attempted to maintain the parasocial relationship with the musical group in a similar way to how one might maintain actual social relationships, through actions such as keeping NKOTB memorabilia and expressing sentiments of affection and loyalty even at the group's absence on the nkotb.com blog. This suggests that relational maintenance may function in other forms of parasocial relationships, such as those with favored television characters.

Parasocial relationships with television characters have been shown to provide feelings of belongingness and buffer against feelings of loneliness and relationship threats beyond just escapism or distraction (Derrick, Gabriel, & Hugenberg, 2008). Lather and Moyer-Guse (2011) found that the strength of the parasocial relationship as well as one's affinity toward television were significant predictors of distress at a parasocial breakup, especially for those who described having more instrumental motives

or companionship motives for watching television rather than ritualistic motives. Another

study that looked at how participants would react if favored television characters were

taken off the air as related to their attachment styles showed that, like social relationships,

participants reported similar reactions after the dissolution of a parasocial relationship

(Cohen, 2004). Findings showed that the strength of the parasocial relationship was

related to parasocial breakup distress and that individuals high in anxious-ambivalent

attachment experienced greater distress at a parasocial breakup than both securely and

avoidantly attached individuals. The researcher noted that even though parasocial

relationships are figurative relationships, they still appear to have similar characteristics

associated with the dissolution of a relationship in that, both relationship intensity and

one's dependence upon that relationship are related to how one reacts to a breakup.

Cohen (2004) also notes that these parasocial relationships are more likely

extensions of, rather than replacements for, real social relationships. This is due to the

fact that if parasocial relationships did replace real social relationships, this would

suggest that individuals high in anxious attachment, who struggle with intimacy, would

have the strongest parasocial relationships because they are safer than real social

relationships, and securely attached individuals who are contented with their social

relationships would have the weakest parasocial relationships, but this is not the case.

Another study examined the television viewing habits of *Friends* viewers, including their

attitudes toward the show, its characters, participants' loneliness, intensity of the

parasocial relationship with a favored character from the show, and degree of distress

following the airing of the last episode of *Friends* (Eyal & Cohen, 2006). Results showed

that though loneliness did not predict the strength of one's parasocial relationship, it was

significantly positively related to parasocial breakup distress, in that those higher in loneliness also experienced greater distress following the ending of the show.

These findings suggest that various aspects of one's psychology, like attachment and loneliness, may be related to the parasocial relational aspects of television viewing.

Television Viewing Behavior and Motives

Television affinity can be described as the significance of television in one's everyday life (Lather & Moyer-Guse, 2011). Television viewing motivations include instrumental and ritualistic motivations. Instrumental motivations indicate that the individual chooses to watch television for a purpose, such as viewing for information about today's weather. Ritualistic motivations are more habitual. For instance, one might, as part of his or her daily ritual, sit down and watch television right after getting home from work; this is seen as a passive act in which the only purpose is to pass the time or for relaxation.

In a study to assess reactions to temporary parasocial breakups, Lather and Moyer-Guse (2011) investigated participants' television viewing affinity and motivations as well as strength of parasocial relationships to favored television characters that were taken off of the air during the television-writers' strike of 2007-2008. The researchers had participants complete Rubin and Rubin's (1982) *Television Affinity* scale and Rubin's (1983) *Television Viewing Motives* scale, as well as measures of the amount of time in hours of television watched on a typical day. They then asked participants who watched shows that had been affected by the writers' strike to complete Cohen's (2003) measure of parasocial breakup distress, Rubin and Perse's (1987) measure of parasocial relationships, and questions asking what activities participants used to fill their time in

the absence of favored television programs. The investigators found that the strength of

one's parasocial relationship, instrumental television viewing motivations, and television

affinity were significant predictors of parasocial breakup distress, and ritualistic

television viewing motivations were negatively, but not significantly, related to

parasocial breakup distress. These findings reiterate the possible links between television

viewing behaviors and psychological factors.

Attachment

According to Bowlby's (1969) theory, one's attachment describes the internal

working model established by the caregiver-child relationship in which, over the lifespan,

the individual develops certain expectations as to his or her attachment figure's

responsiveness and his or her ability to obtain comfort and proximity in times of stress

from one's attachment figure. This working model is dependent upon the amount and

consistency of comfort and proximity the individual was able to obtain from his or her

caregiver in childhood, as well as the past responsiveness of the attachment figure in

adulthood (Simpson & Rholes, 2012). There are three major Attachment dimensions:

secure, anxious, and avoidant. Anxious and avoidant attachment styles are insecure forms

of attachment. Those who score high in avoidant attachment are characterized as feeling

uncomfortable with closeness or intimacy in relationships and are untrustworthy of the

reliability of a partner to fulfill comfort needs (Simpson & Rholes, 2012). On the other

hand, those who score high in anxious attachment can be characterized as having a severe

fear of abandonment and a preoccupation with finding closeness in relationships. An

individual low in both anxious and avoidant attachment is said to have secure attachment.

A secure attachment is characterized as desiring closeness with one's attachment figure

without fear of abandonment and having confidence that he or she can receive support

when needed, as well as comfort in being depended upon for support or comfort from

one's attachment figure.

As noted previously, Cohen (2004) found that attachment and the intensity of

one's parasocial relationship with a favorite TV character is related to participants'

reactions to their favorite character being taken off the air, with anxiously attached

individuals reporting the most distress after imagining a parasocial break-up, and with

avoidantly and securely attached individuals reporting lower levels of distress. These

findings indicate that television, or at least the parasocial relationships provided by

watching television, is of great import in the daily lives of anxiously attached individuals

more so than for either securely or avoidantly attached individuals. Given this, it may be

that individuals high in anxious attachment will have greater affinity for viewing

television than individuals low in anxiety. Also, if television is an important part of one's

daily life, then that person will likely have instrumental television viewing motives rather

than ritualistic television viewing motives. Therefore, individuals higher in anxious

attachment may be more likely to report higher levels of instrumental television viewing

motivations. It is also possible that individuals higher in anxious attachment may use

television viewing as a method of reducing anxiety, and therefore may report higher

levels of ritualistic television viewing motives.

Loneliness

Past research has found that watching favorite television programs buffers against

feelings of loneliness more so than other activities, including eating, surfing the web,

listening to music, and watching anything that's on television (Derrick, Gabriel, &

Hugenberg, 2008). In line with this, as mentioned above, Eyal and Cohen (2006) found that loneliness is positively related to parasocial breakup distress. This makes sense in that, if watching favored television programs buffers against loneliness, then individuals who watch television to combat loneliness would experience greater distress following the dissolution of a parasocial breakup. Page, Hammermeister, Scanlan, and Allen (1996) found that both male and female adolescents who were considered heavy television viewers (5 or more hours per day) scored higher in loneliness than both moderate (2 to 4 hours per day) and light (less than 2 hours per day) viewers. Based upon parasocial breakup distress's relationships with both loneliness and television affinity, and the assumption that those who experience greater distress following a parasocial breakup are likely to have a greater affinity for viewing television than those who experience less distress, television viewing affinity may be positively related to loneliness in that, those who are high in loneliness may have a greater affinity for viewing television than those who are lower in loneliness.

Furthermore, those who viewed television with instrumental motives and with companionship motives were found to have experienced greater parasocial breakup distress (Lather & Moyer-Guse, 2011). The researchers surmise that this relationship between instrumental motives and parasocial breakup distress could be due to the fact that, if individuals are viewing television to accomplish a specified goal rather than simply out of habit, it may be more difficult for those individuals to find alternative activities that meet that goal or need, and the same can be assumed about companionship motives as well. On the other hand, the researchers found a marginal negative relationship between ritualistic television viewing motivations and parasocial breakup

distress, indicating that those who view television out of habit may find it easier to replace watching the television with other activities since viewing television is not meeting some need or goal. Given this, instrumental television viewing motives may be positively related to loneliness, whereas ritualistic television viewing motives may be negatively related to loneliness.

Depression

In a StarTribune article by Bill Ward (2014), an interviewee stated that she felt a sort of depression, like the withdrawal one feels after finishing a good novel, after finishing a season of a television show. Depression here, as operationally defined according to the items on the Center for Epidemiologic Studies Depression Scale (CES-D) includes despondent mood; feelings of guilt, worthlessness, helplessness, and hopelessness; inability or lack of motivation to move; poor appetite; and trouble sleeping (Radloff, 1977). As stated earlier, parasocial relationships have similar characteristics to real social relationships at the dissolution of the relationships (Cohen, 2006). Also, research has shown that in social relationships, typically following the termination of a relationship, individuals may experience feelings of depression (Cohen, 2006; Eyal & Cohen, 2006). Given these findings, depression may be positively related to television viewing affinity. As well, given what is known about the characteristics of ritualistic and instrumental television viewing motives, it is reasonable to assume that individuals that view television for instrumental reasons may have a greater affinity for viewing television than those who view television for ritualistic purposes. Therefore, participants who view television for instrumental purposes may have higher scores of depression.

Well-being

Ryff (1989) outlines the six dimensions of psychological well-being as determined by past theory. These include: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Individuals high in self-acceptance are characterized as having a positive attitude toward the self and one's own past, including good and bad qualities. Those that are high in positive relations with others have an understanding of the reciprocity of relationships, value and have concern for others, and have fulfilling relationships with others. Individuals high in autonomy are characterized as being independent, impervious to outside pressures, and base attitudes about the self on personal standards rather than socially designated standards. Individuals high in environmental mastery typically feel that they hold an element of control of their environments and feel that they are competent doing so. Those high in purpose in life tend to feel that there is meaning to life and are goal- and future-oriented. Individuals high in personal growth tend to be open to new experiences and see the self as a constantly growing and learning being with potential for improvement.

Ryff (1989) purports that overall psychological well-being is comprised of these six dimensions, including attitudes and beliefs about the self, others, and one's surroundings. Previous research exploring the link between the frequency of television use and subjective well-being found that individuals who watched more television experienced lower levels of subjective well-being than those who watched less television (Frey, Benesch, & Stutzer, 2007). It is important here to note that *subjective* well-being is conceptualized as happiness and life satisfaction, whereas *psychological* well-being, according to Ryff, is the insight into one's own potential, happiness being simply an outcome of a life lived with greater psychological well-being (Gulacti, 2014). Given

these findings and our previous assumption that individuals who watch television more frequently will have a higher affinity for viewing television, individuals high in television viewing affinity may have lower levels of overall psychological well-being than individuals with a lesser affinity for viewing television. Also, given the previous assumption that individuals who view television with instrumental motivations are likely to have a greater affinity for viewing television than those who ritualistically view television, we psychological well-being may be negatively related to instrumental television viewing motivations.

Summary and Study Overview

In the present study, we investigated the relationships between college students' television-viewing habits, including binge-watching television, television viewing affinity, television viewing motives, and attachment, loneliness, depression, and psychological well-being. To our knowledge, this is the first study to measure binge-watching television behaviors. Due to the lack of research specifically examining the relationships between television viewing behaviors and our chosen psychological variables of interest, cross-sectional survey methodology was used to explore whether television viewing behaviors and motives are positively or negatively associated with attachment anxiety, attachment avoidance, depression, loneliness, and psychological well-being.

Method

Participants

One hundred and eighty-six students from undergraduate psychology courses at Georgia Southern University were recruited from an online subject pool to partially fulfill

a course requirement or course extra credit. Of these participants, 77 were male, 107 were

female, and two participants did not report their gender. Seventy percent were European

American (White), 21.5% were African American (Black), 3.2% were Latino(a), 2.2%

were Asian American, and .5% were Native American. Three participants reported

"other," of which, one reported being "multi-racial," another reported being "bi-racial,"

and the third did not provide a specific racial or ethnic identity. Two participants did not

report race or ethnicity. The mean age of participants was 20.1 years ($SD = 2.8$). About

29.6% were first-year students, 30.1% were Sophomores, 21.0% were Juniors, 14.5%

were Seniors, and 3.8% were fifth-year Seniors or above; two participants did not report

their year in school.

Design

This correlational study assessed the relationships between television viewing

motives, television affinity, television viewing habits, including binge-watching,

attachment, loneliness, depression, and psychological well-being.

Measures

Television Viewing Motives. Rubin's (1983) *Television Viewing Motives Scale*

(Lather & Moyer-Guse, 2011) was used to evaluate television-viewing motives. This is a

9-item scale with Likert-type questions ranging from 1) *Not at all* to 5) *Exactly* that asks

participants to indicate the extent to which they watch television for these reasons:

arousal, relaxation, entertainment, companionship, out of habit, for information, for social

interaction, to pass the time, or as an escape. In line with past research, these reasons for

viewing television are categorized into ritualistic motives and instrumental motives –

instrumental motives being entertainment, social interaction, information, arousal, and

escape ($M = 2.95$, $SD = .55$, α = .76), and ritualistic motives being relaxation,

companionship, habit, and passing time ($M = 3.10$, $SD = .60$, α = .68) In the present

research, Cronbach's alpha for overall Television Viewing Motives was .78. Cronbach's

alphas for Instrumental and Ritualistic motives were .59 and .68, respectively.

Television Affinity. Television affinity was measured using Rubin and Rubin's

(1982) *Television Affinity Scale*. This scale is comprised of 5 Likert-type items that asks

participants to indicate the degree to which they agree with each statement. Answers

range from 1) *Strongly disagree* to 5) *Strongly agree*. Items include, "I would feel lost

without television to watch," "I could easily do without television for several days,"

"Watching television is one of the more important things I do each day," "Television is

very important in my life," and "If the television wasn't working, I would really miss it."

Past research has shown a reliability coefficient of .83 (Rubin, 1982). The present

research found a reliability coefficient of .86.

Television Viewing Habits. We constructed our own *Television Viewing Habits*

Questionnaire to assess Georgia Southern University undergraduate students' television

viewing habits. It consisted of 10 items, including Likert-type, yes/no, and fill-in

questions. Questions included, asking participants to estimate the amount of time in hours

they typically spend watching television on each day of the week, "Do you stream

television shows or movies from Netflix, Hulu, Amazon Instant Video, or similar

forums" (*Yes/No*), "What show(s) do you spend the most time watching," "Do you watch

back-to-back episodes of any shows in a single setting" (*Yes/No*), "Which show(s) do you

watch back-to-back episodes of," "When are you most likely to watch back-to-back

episodes of a favorite television program" (*1=Monday, 7=Sunday.*), "How often do you

watch back-to-back episodes of a favorite television program" (*1=Never, 5=All of the time*), "I normally view television programs by myself" (*1=Never, 5=All of the time*), "I discuss my favorite television programs with others" (*1=Never, 5=All of the time*), "I view my television-viewing habits as" (*1=Not at all healthy, 5=Very healthy*).

Attachment. To assess attachment, the *Experiences in Close Relationships: Revised* (ECR-R; Fraley, Waller, & Brennan, 2000) scale was used. The ECR-R is a 36-item assessment measuring attachment on its two subscales: Anxiety (characterized by a preoccupation with relationships for fear of abandonment) and Avoidance (characterized by self-exclusion from others due to the belief that they cannot be depended upon in times of need). Participants answered questions on a Likert scale ranging from 1) *Disagree strongly* to 7) *Agree strongly*. An example of an item under the Anxiety subscale includes, "My desire to be very close sometimes scares people away," and an example of an item under the Avoidance subscale is, "I am nervous when partners get too close to me." Sibley, Fischer, and Liu (2005) provide support for the construct validity of the ECR-R as a measure of romantic attachment as compared to other interpersonal relationships, such as friend or family affiliations. In past research, internal reliability has been established for the ECR-R with a Cronbach's alpha of .92 for the Avoidance subscale and .94 for the Anxiety subscale (Raque-Bogdan et al., 2011). Also, Fraley and colleagues (2000) established test-retest reliability of .93 and .94 for the Anxiety subscale and .95 and .95 for the Avoidance subscale. In the current sample, Cronbach's alpha for Attachment Anxiety and Avoidance subscales were .92 and .94, respectively.

Loneliness. Loneliness was assessed using the *UCLA Loneliness Scale (Version 3)* (Russell, 1996). The UCLA Loneliness Scale consists of 20 Likert-type items that ask

participants to indicate how often they feel the way described in each statement ranging

from 1) *Never* to 4) *Always*. Sample questions include, "How often do you feel that you

have a lot in common with the people around you," "How often do you feel outgoing and

friendly," and "How often do you feel that you lack companionship?" Support for

convergent validity was established by significant correlations between the UCLA

Loneliness Scale and other measures of loneliness, including the NYU Loneliness Scale;

discriminant validity was established through the negative correlation between loneliness

scores and measures of social support, and construct validity was shown via significant

relationships between loneliness scores and the Neuroticism and Introversion-

Extroversion personality traits (Russell, 1996). Also, past research has found the UCLA

Loneliness Scale to be highly reliable, with a coefficient alpha of .92 for college students

(Russell, 1996). In the current research, Cronbach's alpha was .92.

Depression. The *Center for Epidemiologic Studies Depression Scale* (CES-D;

Radloff, 1977) was used to assess depression. The CES-D is a 20-item, Likert-type

assessment that asks participants to indicate how often they have felt the way described in

each item during the past week. Answers range from 1) *Rarely or none of the time (<1*

day) to 4) *Most or all of the time (5-7 days)*. Sample items include, "I felt I was just as

good as other people," I did not feel like eating; my appetite was poor," and "I was

bothered by things that don't usually bother me." Past research has shown Cronbach's

alphas of .90, .91, and .87 – over three separate testing times in a period of seven months

– supporting internal reliability (Ames, Pratt, Pancer, Wintre, & Polivy, 2011). In the

present sample, Cronbach's alpha was .92.

Psychological Well-Being. *Ryff's Scale of Psychological Well-Being* (Ryff, 1989) was used to measure psychological well-being overall. This scale consists of six 14-item scales: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Items are on a Likert-type scale on which participants will indicate the extent they agree or disagree with each statement ranging from 1) *Strongly Disagree* to 6) *Strongly Agree*. Examples questions include, "I find it difficult to really open up when I talk with others," "I am an active person in carrying out the plans I set for myself," and "I am not interested in activities that will expand my horizons." Previous research has reported Cronbach's alpha for each of the subscales as .93 for self-acceptance, .91 for positive relations with others, .86 for autonomy, .90 for environmental mastery, .90 for life purpose, and .87 for personal development. For simplicity, in the present research, we established internal consistency for overall psychological well-being, with a Cronbach's alpha of .96 for overall psychological well-being.

Demographics. Participants completed demographic information, including age, race/ethnicity, gender, and year in school.

Procedure

An online survey was developed using Qualtrics survey software for the participants to complete the measures of attachment, loneliness, depression, psychological well-being, television viewing motives, television viewing affinity, television viewing habits, and demographic items. Participants signed up for the study via Sona, an online research management system, under the title *Television Viewing Habits*. The current research took approximately 35 minutes to complete and participants were

offered 1 credit toward a course requirement or course extra credit. The description of the

study read, "This research will assess your TV viewing habits and measures related to

your personality, feelings, and behaviors. Your task is to answer the questions honestly,

and respond knowing that your answers will remain anonymous. If you wish to

participate, please click the link below." After providing informed consent, participants

completed each of the measures in one of two randomized orders: 1) television viewing

behavior measures (Television Viewing Motives, Television Affinity, and TV Viewing

Habits) followed by psychological measures (ECR-R, UCLA Loneliness Scale, CES-D,

and Ryff's Psychological Well-Being Scale) or 2) psychological measures followed by

television viewing behavior measures. Next, all participants were asked to complete a

demographics section. At completion of all of the measures, participants were directed to

a debriefing page that included sentiments of appreciation for participation in the study,

specific directions concerning how to appropriately receive credit for having completed

the questionnaire, a statement of the purpose of the current study, and a request not to

share the content of the study with others in order to protect the scientific validity of the

research.

<div align="center">**Results**</div>

Preliminary Analyses

   To counterbalance the measures, participants were randomly assigned to one of

two orders of the survey: 1) to receive psychological measures first (ECR-R, UCLA

Loneliness Scale, CES-D, and Ryff's Psychological Well-Being Scale), or 2) to receive

television viewing behavior measures first (Television Viewing Affinity, Television

Viewing Motives, and questions concerning television viewing habits). No order effects

were found, therefore, we collapsed across order. For both the Attachment Avoidance

and Attachment Anxiety scales, responses were averaged, and for the UCLA Loneliness

Scale, the CES-D, Ryff's Psychological Well-Being Scale, Television Viewing Affinity,

and both the Ritualistic and Instrumental subscales of the Television Motives Scales were

summed, with higher scores indicating more of the attachment dimension, greater

loneliness, greater depression, greater overall well-being, higher television viewing

affinity, and higher television viewing motives. See Table 1 for the minimum, maximum,

means, and standard deviations for all psychological variables , Table 2 for the minimum,

maximum, means, standard deviations, frequencies, and percentages for all television

viewing variables, and Table 3 for a summary of the number of hours spent watching

television programs on each day of the week.

When looking at television viewing habits, participants were asked to indicate the

approximate number of hours they spend viewing television on each day of the week.

Table 3 summarizes the findings for these items. We found it interesting to note that

students reported watching more television on the weekends. Also, on weekdays, on

average participants reported watching 1.94 hours per day of television, but on the

weekends, participants report viewing approximately 3.05 hours of television per day.

When conducting Pearson's Correlation Coefficients, we found that, when we included

the reported frequencies of viewing television on each day of the week in the bivariate

correlations, there was a significant positive relationship between frequency of television

viewing on Friday and loneliness, $r(184) = .18$, $p = .02$, in that, those who reported

watching more television on Friday tended to have higher levels of loneliness. This was

the only significant relationship we found between the frequency of television-viewing

on a given day of the week and any of the psychological variables. This finding might

possibly be explained by the social norms of people being more social on Fridays because

it is the end of the school/work week. Therefore, those who are home on a Friday may

not be socializing and thus, may experience more loneliness and may be more likely to

spend their time watching television. This is simply speculation, however, since it is not

know what times of day people tend to watch television.

Referring to Table 2, when asked whether or not they view back-to-back episodes

of the same television program in a single sitting, 89.8 percent of participants responded

that they did engage in this behavior, supporting the notion of the recent trend of binge-

viewing television. Also, in line with our findings about participants' frequency of

viewing television on a given day of the week, when asked, "When are you most likely to

watch back-to-back episodes of a favorite television program," participants also reported

engaging in this binge-viewing behavior on Fridays, Saturdays, and Sundays more so

than Monday through Thursday.

We also asked participants to name shows that they watch when engaging in this

binge-viewing behavior. The intent behind this question was to gain some further insight

concerning students' binge-viewing television behaviors. Rather than explicitly stating a

show title, some participants' answers included "sitcoms," "cartoons," "crime shows," or,

"anything on Netflix," to name a few. Of the participants that did answer with show titles,

some of the most frequently named television programs included *The Walking Dead*, *Law

and Order*, *Grey's Anatomy*, *Family Guy*, *Orange is the New Black*, and *Breaking Bad*.

Of particular interest was the origin of these shows. *Breaking Bad* and *Orange is the New*

Black are both Netflix Originals. All of these top-reported shows are accessible on

Netflix, and all except the Netflix Originals are accessible on Hulu.

Table 1

Descriptive Statistics for Psychological Measures

Measure	N	Min	Max	*M*	*SD*
1. Attachment Anxiety	172	1.00	6.72	3.76	1.12
2. Attachment Avoidance	169	1.00	6.11	2.96	1.06
3. Loneliness	166	24.00	72.00	44.59	10.22
4. Depression	176	20.00	72.00	36.66	10.73
5. Psychological Well-Being	136	236.00	479.00	371.40	52.91

Table 2

Descriptive Statistics Television Viewing Behavior Measures

Measure	N	Min	Max	*M*	*SD*	Frequencies		*%*
1. TV Affinity	185	5.00	24.00	10.88	4.55		__	__
2. Instrumental TV Viewing Motives	182	6.00	25.00	13.75	3.22		__	__
3. Ritualistic TV Viewing Motives	183	4.00	20.00	11.88	2.92		__	__
4. Watch back-to-back episodes Y/N?	184	0	1	.91	.29	No	17	9.1
						Yes	167	89.8
5. When watch back-to-back episodes?	168	1	8	5.21	2.04	Mon	14	7.5
						Tues	14	7.5
						Wed	10	5.4
						Thurs	9	4.8
						Fri	23	12.4
						Sat	41	22.0
						Sun	50	26.9
						N/A	7	3.8
6. How often watch back-to-back episodes?	167	1	5	3.22	.87	Never	1	.5
						Rarely	30	16.1
						Sometimes	82	44.1
						Most time	39	21.0
						All time	15	8.1

Table 3

Descriptive Statistics for number of hours spent watching television programs on each day of the week

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Sum of total hrs. of TV viewed in a week
N	177	176	176	176	176	177	176	178
Min	0	0	0	0	0	0	0	0
Max	10	13	14	10	12	16	16	76
M	1.95	1.93	1.99	1.84	1.97	3.04	3.05	15.89
SD	1.95	1.90	2.21	1.74	2.04	2.82	2.60	13.09

Note. Scores of participants who reported numbers above 24 were disregarded.

Primary Analyses

Pearson's Correlation Coefficients were conducted to determine the relationships between the psychological variables of attachment anxiety, attachment avoidance, depression, loneliness, psychological well-being, and the television viewing variables of television viewing affinity, television viewing motives, frequency of watching television in a week, and frequency of watching back-to-back episodes of one television program in a single sitting. As expected, there were several significant relationships within the psychological variables, and within the television viewing variables. The current interest, however, was the bivariate correlations between the psychological variables and the television viewing behavior variables. The significant results are described below by each psychological variable. All correlations are reported in Table 4.

Table 4

Summary of Intercorrelations for Scores on the ECR-R, CES-D, UCLA Loneliness Scale, Ryff's Scale of Psychological Well-Being, Television Viewing Affinity, Television Viewing Motivations, Frequency of TV viewing in a week, and Frequency of Binge-watching TV

Measure	1	2	3	4	5	6	7	8	9	10
1. Attachment Anxiety	--	.39**	.50**	.42**	-.45**	.05	.13	.17*	.02	.17*
2. Attachment Avoidance	--	--	.26**	.38**	-.47**	.14	.10	.11	-.14	.04
3. Depression	--	--	--	.58**	-.65**	.09	.17*	.23**	.06	.23**
4. Loneliness	--	--	--	--	-.66**	.09	.11	.18*	-.03	-.04
5. Psychological Well-Being	--	--	--	--	--	-.17	.04	-.09	-.02	-.17
6. TV Affinity	--	--	--	--	--	--	.48**	.54**	.31**	.34**
7. Instrumental TV Viewing Motivations	--	--	--	--	--	--	--	.68**	.13	.20*
8. Ritualistic TV Viewing Motivations	--	--	--	--	--	--	--	--	.12**	.33**
9. Sum of total hrs of TV watched in a week	--	--	--	--	--	--	--	--	--	.23**
10. Frequency of watching back-to-back episodes	--	--	--	--	--	--	--	--	--	--

**. Correlation is significant at the .01 level (2-tailed).
*. Correlation is significant at the .05 level (2-tailed).

Attachment. Attachment anxiety was significantly positively associated with ritualistic viewing motives, $r(184) = .17$, $p = .03$, and with the frequency of watching back-to-back episodes of the same television program in one sitting, $r(184) = .17$, $p = .04$. In other words, the higher individuals scored in attachment anxiety, the more they reported watching television for ritualistic motives, and the more often they reported watching back-to-back television programs. Attachment avoidance was not significantly associated with any of the television viewing variables.

Depression. Depression was significantly positively related to both instrumental, $r(184) = .17$, $p = .03$, and ritualistic, $r(184) = .23$, $p = .003$, television viewing motivations, as well as with the frequency of watching back-to-back episodes of television programs, $r(184) = .23$, $p = .004$. The higher participants scored in depression, the more they reported watching television for both ritualistic and instrumental purposes, and the more they reported watching back-to-back episodes of television programs.

Loneliness. Loneliness was found to be significantly positively related to ritualistic television viewing motivations, $r(184) = .18$, $p = .02$, meaning that the higher participants scored in loneliness, the more often they reported viewing television due to ritualistic motivations.

Psychological Well-Being. Psychological well-being was not found to be significantly related to any of television viewing behavior variables.

Discussion

The current research was an exploratory, descriptive study designed to observe the relationships between television viewing behaviors in college students, especially that of the new binge-watching trend, and personal and interpersonal variables. The nature of

this study was exploratory, and therefore, we did not suggest any directional hypotheses. Rather, were interested in whether or not there were relationships between television viewing behavior variables and psychological variables, and not the direction of these relationships. The purpose of this research was to lay a groundwork of knowledge from which these relationships can be explored further.

With binge-watching television behavior being the crux of this research, we were interested to find the associations between binge-watching behavior and psychological variables. For this study, we described binge-watching behavior as watching back-to-back episodes of the same program in a single sitting. We found that participants who scored high in anxious attachment – individuals who are characterized as having a preoccupation with closeness in relationships and fear of abandonment – also reported greater frequencies of engaging in binge-watching television. These individuals were also more likely to report watching television for ritualistic purposes, meaning that those who experienced greater levels of attachment anxiety also tended to watch television for ritualistic purposes such as relaxation or to pass the time. Participants high in depression tended to report higher levels of watching television for both ritualistic and instrumental or purposeful motivations, such as to gain information or for engaging entertainment, and these individuals also reported higher frequencies of engaging in binge-watching behavior. Lastly, individuals who scored higher in loneliness reported a greater tendency of watching television for more ritualistic reasons. Interestingly, attachment and depression were positively related to the frequency of binge-watching television, but were not related to the frequency of watching television in general. This result suggests that there is something unique to binge-watching television, above and beyond the

frequency of watching television. Cohen, (2004) found that individuals high in anxious attachment experienced greater distress at a parasocial breakup than both securely and avoidantly attached individuals. Perhaps individuals who are higher in attachment anxiety are more likely to binge-watch television because of their greater affiliation with television characters. Individuals higher in depression may be more likely to binge-watch television shows out of comfort seeking. It also seems possible that individuals who are higher in depression lack the motivation or cognitive energy to resist the auto-play functions of streaming products. In the present study, we did not distinguish between actively seeking programs in which to engage and just watching what comes on the television. This distinction would be important in determining who is truly "binge-watching" and who is "couch-surfing." Binge-watching television assumes an active role in engaging in watching television programs followed by – perhaps for or against one's own volition – more active participation in viewing episodes of the same program. "Couch-surfing" implies that one is simply watching whatever is on the television without seeking to engage in the content of the program. Also, an interesting behavior to distinguish as well is the difference between binge-watching back-to-back episodes of the *same* program in a single sitting versus catching up on the latest episodes of different programs in a single sitting. The latter behavior could not be explained by the ease of watching the next episode of a show via the countdown to the next episode that Netflix and Hulu employ on their sites because this requires the viewer to actively change the program being viewed, which could mean changing the channel, the website, or the streaming forum.

Limitations

Because the current study was meant to be purely exploratory, we were interested in whether the psychological variables would be related to the variables on television viewing behavior rather than why they were related. Although our cross-sectional survey design allowed us to test for associations between the television viewing variables and the psychological variables, this design may have obscured important relationships. Future research could use a longitudinal design to try to understand the direction of the observed relationships, or an experimental design, to test for causal effects of binge-watching television on attachment, depression, loneliness, and well-being. Also, because the survey was made available to students online, participants could simply complete the measures wherever was most convenient. Though the majority of participants did complete the survey around the 35 minutes we approximated that the survey would take to complete, some participants took upwards of two to three hours to complete the survey. Because of the software used to disseminate the survey, participants were able to begin the survey, and then come back to it at a later time if desired. This variability in the testing situation might have in some way influenced participant responses. Also, the items designed to look at television viewing habits were designed by the investigators of the current study. Having not been based off of any previous questions or scales in the past literature, the reliability and validity of these questions has not been established. Finally, due to the fact that participants were students drawn from a single university, there is a question concerning the generalizability of the current research.

Practical Implications

As noted previously anxiously attached individuals and individuals high in depression reported greater frequencies of watching back-to-back episodes of a television

program in a single sitting, which we determined to be the operational definition of

binge-viewing television. Further research on these relationships is necessary, but if

future research supports these findings, it may suggest that binge-watching television

programs may be a risk-factor for depression or an indicator of depression or anxious

attachment, allowing for the possibility of using television- and internet-use data to

discover a greater understanding of individuals suffering from depression, even going as

far as obtaining geographical data on places that report the highest concentration of

binge-viewing television, and allocating therapeutic or medicinal resources in a more

efficient way.

Also, we found that attachment anxiety, depression, and loneliness were all

significantly positively related to ritualistic television viewing motivations, and that

depression was also significantly positively related to instrumental television viewing

motivations. Having a greater understanding of these relationships, with the ever-growing

culture surrounding television-program consumption, could be useful in bettering the

treatment of individuals dealing with insecure attachments, loneliness, or depression.

Future Directions

The future of this research should focus on longitudinal and experimental research

designs. In the current study, we found only one significant relationship between

loneliness and television viewing behavior, which was the positive correlation between

loneliness and ritualistic television viewing motives. However, Derrick, Gabriel, and

Hugenberg (2008) showed that viewing favorite television programs buffered against

feelings of loneliness. Their findings might suggest that, in the current study, perhaps the

television viewing had already decreased loneliness. Some people have described

experiencing feelings of depression following a binge-watching session (Ward, 2014). It might be interesting to observe in future studies how these personal variables might change or fluctuate depending upon where one is at in a binge- before, during, or after a binge of watching television. As well, some noted the social aspects of binge-watching television, such as the "binge-bonding" sessions mentioned earlier, as well as the competitive nature of being ahead of peers in a season of a program (Ward 2014; Willens, 2013). Future research might focus on how binge-watching behavior is related to or affects social interaction. Future research should conduct longitudinal research and experimental research to better understand the consequences of television viewing behaviors and how the relationships between television viewing behaviors, especially binge-watching TV, and psychological variables might occur over time. Also, in future research it might be helpful to test participants in a more controlled setting in order to prevent any biases that might have stemmed from varied testing situations. As well, to increase generalizability, diversity in age, race/ethnicity, occupation, geographic location, and other demographics should be included in future samples.

Conclusion

Due to a noticeable increase in the use of streaming forums like Netflix, Hulu, and Amazon Prime Instant Video, we were interested in observing the relationships between television viewing behaviors, especially the behavior of binge-watching, and personal and interpersonal variables. In the present research, we investigated the relationships between the psychological factors of relationship attachment, depression, loneliness, and psychological well-being, and the television viewing behaviors of university students, including viewing motives, affinity, and binge-watching habits. The psychological

characteristics of attachment anxiety, loneliness, and depression were found to have significant positive relationships to some of the television viewing behavior variables, including both instrumental and ritualistic motivations and frequency of binge-watching behaviors. This research begins to address the great need for an understanding of these relationships, especially considering the relevance in today's society of streaming programs from sites like Hulu and Netflix to later take binges of television-viewing. To our knowledge, we are the first to assess the behavior of binge-watching television so there is still a great deal more to learn on this subject. The current research provided a starting point from which future research can stem so that the knowledge base of the interaction between psychological characteristics and television viewing behaviors can grow. Continuation of this research could bring valuable information and understanding into the relational interactions between television viewing behaviors and psychological factors. This information could shed light on how television viewing behaviors, especially the recent trend of binge-viewing television, might affect our mental health, possibly leading in the future to understandings of healthier practices of everyday activities like television-viewing.

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