

Development and Evaluation of The Excessive Need For Approval scale

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Abstract

The need for approval from others has long been an important reference point in research, contributing to scientific knowledge on attachment styles, social desirability and behavioral motivation, among others. However, measurements of need for approval are usually aimed at common levels in the population. In the present study, we have developed a scale measuring excessive levels of need for approval, using Griffiths' components model of behavioral addiction as a framework. A pool of 30 items, five for each addiction criteria (i.e., "salience", "mood modification", "conflict", "tolerance", "withdrawal" and "relapse") was constructed and presented to a sample of 381 UK respondents through a self-report questionnaire, using Prolific. The participants responded to the excessive need for approval scale, along with other related constructs (problematic social media usage, gambling- and gaming addiction, narcissism, attachment styles, relatedness need satisfaction, self-esteem and the contingency of approval on self-worth, as well as demographic variables). Two confirmatory factor analyses were performed. The highest loaded item from each of the six sets was retained in a final scale, The Excessive Need for Approval scale (ENFA-6). The factor structure of the ENFA-6 showed good fit with our data, as well as good reliability.. Construct validity for the ENFA-6 was supported as the scores correlated with several related constructs in the expected direction. The ENFA-6 is the first scale to measure excessive need for approval within an addiction framework. Implications of having a measurement of excessive need for approval are discussed.

Key words: Excessive need for approval, scale development, self-esteem, behavioral addiction

Sammendrag

Bekreftelsesbehov har lenge vært et viktig referansepunkt i forskning, og har bidratt til vitenskapelig kunnskap om blant annet tilknytningsstil, sosial ønskverdighet og motivasjon for atferd. Likevel er det slik at mål på bekræftelsesbehov vanligvis sikter seg inn på å måle nivå av bekræftelsesbehov som er ansett som vanlig i populasjonen. I denne studien har vi utviklet en skala som måler overflødig bekræftelsesbehov, ved å bruke Griffiths sin “components model of behavioral addiction” som et rammeverk. Et utvalg av 30 ledd, fem for hvert kriterie for avhengighet (“fremtredende”, “humør modererende”, “konflikt”, “toleranse”, “abstinens” og “tilbakefall”) ble konstruert og presentert til et utvalg på 381 deltakere fra UK gjennom et selvrapporterings skjema, ved bruk av Prolific. Deltakerne responderte på skalaen som måler overflødig bekræftelsesbehov, i tillegg til skalaer som måler andre relaterte konstrukter (problematisk bruk av sosiale medier, gambling- og spillavhengighet, narsissisme, tilknytningsstil, tilfredsstillelse av behovet for å relatere seg til andre, selvfølelse og hvilken betydning bekræftelse har for deres selvverd, i tillegg til demografiske variabler). To faktoranalyser ble utført. Leddet med høyest faktorbelastning fra hvert av de seks settene ble beholdt i den endelige skalaen, The Excessive Need for Approval scale (ENFA-6). Faktorstrukturen til ENFA-6 viste at den passet godt til dataene og hadde god reliabilitet. Konstruktvaliditeten til ENFA-6 ble støttet, da skårene korrelerte med flere av de relaterte konstruktene den forventede retningen. ENFA-6 er den første skalaen til å måle overflødig bekræftelsesbehov innenfor et avhengighetsrammeverk. Implikasjoner av å ha et mål på overflødig bekræftelsesbehov er diskutert.

Nøkkelord: Overflødig bekræftelsesbehov, skalautvikling, selvfølelse, atferdsavhengighet

Preface

The idea of this project was partly grounded in our private observations of people we have encountered, noticing that there were seemingly large differences in their need for approval from others in order to feel good about themselves and their actions. We further wondered whether certain people could have a need for approval that is high to the point that it may be considered an addiction, and were initially interested in exploring the topic of “approval addiction” and its relation to social media usage and self-worth. We thus contacted Eilin Kristine Erevik, the leader of the Addiction Research Group at the University of Bergen. Eilin kindly agreed to supervise us in this project, along with Ståle Pallesen, who agreed to be our co-supervisor. However, after some initial meetings and reading sessions, we were left with the realization that there was not any existing empirical support for the term “approval addiction”. If we wanted to proceed with centering our project somewhat around this topic, we were advised to develop a new scale for excessive need for approval, using components of behavioral addiction as a framework and examining the validity of the scale by also measuring related constructs.

While our supervisor and co-supervisor had extensive knowledge and experience regarding addiction research and scale development, the topic of excessive need for approval was novel to all of us. We thus started this project from scratch, with good help from our supervisor and co-supervisor in the process of developing a research question, structuring the main points of discussion and elaboration, deciding on which analyses were suitable, as well as developing items for the ENFA scale. Further on, extensive literature search on our part was necessary in order to form the body of reasoning and arguments that are presented throughout the thesis. We further learned a lot by independently performing the analyses which were deemed to be suitable in the context of this project.

We would like to express our gratitude to our supervisor Eilin Kristine Erevik and our co-supervisor Ståle Pallesen, for giving us the opportunity to complete our project on a topic that is of high interest to us. Moreover, we would like to offer our thanks to the University of Bergen for supplying us with funds to pay our participants. We are highly grateful for our supervisor's and co-supervisor's thorough advice and feedback throughout all stages of the project, as well as all new experience and knowledge that we have been fortunate to acquire during the process of completing this work. We are excited for the road ahead of completing a master's degree in social and cognitive psychology, and thank our supervisor and co-supervisor for their engagement in contributing to the completion of this master's thesis.

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1. Introduction

Social media usage has skyrocketed during the past decade, both globally and across generations (Dean, 2021). It has been stated that one of the motives behind social media usage is the need for approval (e.g., Jong & Drummond, 2016; Savci et al., 2021). This may be a reasonable argument, as much of social media activity is centered around either posting content and getting likes, comments and new followers (putting yourself “out there”, and thereby potentially getting approval), or giving approval to others by following other people and actively engaging with their content. One could further speculate why social media usage may be linked to the need for approval, and whether one could intensify the other. In the present study, we aim to explore the topic of excessive need for approval by developing a measurement focused specifically on excessive levels of this need, rather than common levels of need for approval. Further, we aim to examine possible connections between excessive need for approval and problematic social media usage, along with other, seemingly related constructs.

Although the need for approval is argued to be universal, the strength of it is not believed to be uniform for all people, and little is known about what affects it and how (Skymba et al., 2022). Need for approval may be defined as “the extent to which an individual behaves in ways that he thinks others will approve of in order to get them to like him” (Barger & Peck, 2011, p. 789), or as “the extent to which an individual's self-worth is contingent on approval” (Rudolph & Bohn, 2014; as cited in Skymba et al., 2022, p. 1).

Throughout the introduction, we are going to discuss the topic of need for approval. As we will elaborate further, it may be thought that need for approval could have been beneficial for humans from an evolutionary perspective. Further on, we will discuss relevant theories and literature regarding the development of need for approval throughout an individual’s life span, as well as potential explanations for individual differences in levels of

need for approval. High need for approval has also been shown to have detrimental effects, which will be further elaborated on. Moreover, a distinction between certain motivations for approval-seeking behavior and mental activity has been proposed, which we believe is of relevance to our present exploration of excessive need for approval. Further, we are going to highlight certain existing measures of need for approval, both in the early years of research regarding the construct and at the present time. We have opted to use a behavioral addiction framework in the development of a novel measure of excessive need for approval, and are therefore going to discuss recent uttered positions regarding similar approaches. Lastly, we describe a range of constructs that are seemingly related to need for approval, based on relevant literature and research.

1.1 Approval in an Evolutionary Perspective

An excessive need for approval might be a consequence of evolution-based psychological forces. Firstly, an orientation towards approval might be adaptive if it leads to exhibiting behaviors and developing traits that are socially desirable. It can also be argued that people's inherent need for belonging may be a motive for seeking approval (Baumeister & Leary, 1995). To stand out negatively from the group you belong to can lead to exclusion, and therefore also reduce the chance of survival by not having a group to protect oneself from dangers and share food sources with (Buss, 1990).

In addition to promoting survival, getting approved by and belonging to a group may also promote reproduction by meeting potential partners in one's social environment. The need to acquire a partner and pass on one's own genes may lead to seeking greater approval of various aspects of oneself, as popularity and recognition from others will increase one's attractiveness as a partner (Place et al., 2010). Just as other evolutionary adaptations (e.g. need for excitement; Sandseter & Kennair, 2011) may be too strong and problematic for some people in certain settings (e.g., in regards to problem gambling; Clarke et al., 2007; and risk-

taking behavior; Zaleskiewicz, 2003), one might speculate that excessive need for approval can have similar repercussions.

1.2 Development of Need for Approval During an Individual's Lifetime

Individuals are likely to learn that certain actions tend to lead to others expressing approval of them. According to Falk and Kim (2019), social reactions (i.e., verbal approval, reprimands, attention, affection or rejection) might function as positive reinforcements as a result of association with primary experiences. Hence, it may be thought that people would repeat actions that have led to receiving approval in the past, perhaps specifically if the approval is received from people who they have a closer relationship with. This as intimate relationships are seen as central in the development of need for approval (attachment theory; Bowlby, 1982/1969; as cited in Mikulincer, Shaver & Pereg., 2003; 1973; as cited in Mikulincer et al., 2003). As approval is argued to be central in several theories of attachment style (see Section 1.10.7 “Attachment style” for further elaboration), one might speculate whether a development of excessive need for approval could be partly grounded in childhood experiences. Assuming that relationships during child development have a great impact on forming connections with others, one could further assume that these relationships in turn could affect whether one’s sense of self-worth is contingent on other’s approval later in life.

During a child’s first years, it’s the parental relationship that is the most central and affects the child’s development the most. However, during late childhood, peer relationships typically become more prominent as peer groups commonly act as a key socialization context (Rudolph et al., 2005; Nickerson & Nagle, 2005). Rudolph & Bohn (2014) researched how children's need for approval from peers predicted social behavior. They found that motivation to gain approval resulted in more positive social engagements and less conflicts, and motivation to avoid disapproval predicted the opposite (Rudolph & Bohn, 2014).

While young children need a high level of approval, the need for approval is said to decrease naturally when children gain a more stable sense of self and become more independent from other people's judgements and evaluations over time (Harter, 1998). However, Rudolph et al. (2005) found that individual differences in need for approval tend to intensify during late childhood and early adolescence, in that some individuals continue to rely on others approval for their sense of self-worth, and some gain a stable sense of self that is less affected by social cues. Therefore, some children's self-concept seems to remain more dependent on such judgements and evaluations (Rudolph et al., 2005). One could argue that this leads to some children growing up with a higher need for approval than others.

Findings presented by Rudolph et al. (2005) are in line with several theories of personality development, which posit that some individuals predominantly base their self-worth on approval and successful relationships (e.g., Blatt & Homann, 1992; Crocker & Wolfe, 2001; Fritz & Helgeson, 1998; Markus & Kitayama, 1991; Robins & Block, 1988).

When a child reaches adolescence, peer approval tends to become more salient (Rankin, et al., 2004; Somerville, 2013; Westenberg et al., 2004). Orben et al., (2020) found that because older children and adolescents spend less time with family and more time with their peers, they create more complex relationships with the latter. In turn, this increases the importance of obtaining social approval from peers for certain individuals, making them become evidently more sensitive to peer approval than younger children (< 10 years) and adults (Orben et al., 2020). Consequently, this might contribute to intensifying individual differences in need for approval (Harter et al., 1996). Reaching adulthood, the need for approval has been shown to again decrease with age (Brown, 1990; Harter, 1998; Harter et al., 1998).

1.3 Potential Explanations for Differences in Development of Need for Approval

1.3.1 The Belonging Regulation Model

The belonging regulation model (Gardner et al., 2005) provides further insights into how and why higher need for approval occurs among certain individuals. According to this model, interpersonal needs are regulated via consistent monitoring by the individual (Skymba et al., 2022). The need for approval, along with the need to belong, are said to be central interpersonal needs in this regard (Skymba et al., 2022). According to the model, an internal Social Monitoring System (SMS) is activated when a threat to interpersonal needs is perceived, making the individual more observant of the current social environment (Gardner et al., 2005). The SMS is said to assist individuals in perceiving information that will help them understand the social environment better (Gardner et al., 2005). As need for approval is argued to be central in the functioning of the SMS, this need may be argued to be inherently beneficial for the individual in certain contexts, as it may assist with social adjustment and social functioning.

Gardner and colleagues (2005) propose that interpersonal states have an equilibrium like physiological states, such as body temperature and satiety. When individuals experience scarcity in social inclusion and acceptance, they may resort to “social snacking” (Gardner et al., 2005). SMS is assumed to prompt the individual to initiate positive interactions with others (Skymba et al., 2022). Supporting this theory, Maner et al. (2007) has demonstrated that social exclusion tends to increase motivation to regain a sense of belonging and acceptance in new social groups.

Gardner and colleagues (2005) have found that individuals who are rejected and/or have a chronically high need to belong are particularly attentive to social cues. Regarding need for approval, one could assume that this could take form as extensive approval seeking behavior. Self-esteem is central in the functioning of the SMS and is said to serve as a “sociometer” providing feedback when interpersonal needs are not met (Gardner et al., 2005).

The sociometer model will be elaborated further below (see Section 1.10.2.3 “The relationship between self-esteem and the need for approval” under 1.10.2 “Self-esteem”).

1.3.2 Need Substitute Theory

Feeling accepted in and valued by a social group is important for general well-being and fulfillment of basic psychological needs, specifically the need for relatedness (Deci & Ryan, 2000, p. 229). Deci and Ryan (2000, p. 249) have argued that a way of accommodating a lack of basic psychological need fulfillment may be a development of need substitutes or compensatory motives, which are associated with the pursuit of extrinsic aspirations. In line with this argument, Kasser et al. (1995) found that children of mothers that scored low on democracy, non-controllingness, and warmth placed significantly higher relative importance on extrinsic aspirations in adolescent years.

Need substitutes and compensatory motives do not really satisfy thwarted needs, but rather provide some collateral satisfaction (Deci & Ryan, 2000, p. 249). The authors further provide an example of the basic need for relatedness - if this need is constantly thwarted when a child is young, they might resort to gaining approval later in life by pursuing goals related to extrinsic aspirations, such as wealth, fame, or image. The attainment of such goals does not seem to satisfy the basic need for relatedness, and the thwarted need may thereby be understood as a cause of various negative mental health consequences (Deci & Ryan, 2000, p. 250). It may be argued that an excessive need for approval reflects such a need substitute, which stems from a frustrated need for relatedness.

1.3.3 IPARTheory

According to the personality subtheory of Interpersonal Acceptance-Rejection Theory (IPARTheory), both children and adults with an unfulfilled need for positive response from significant people in their lives are predisposed to respond in specific ways, both emotionally and behaviorally (Rohner, 2004). This tendency is argued to be universal across variations in

culture, ethnicity, race and gender (Rohner, 2004). Though initially assumed to relate primarily to perception of parental relationships, the theory expanded its focus to include other important relationships throughout the life span (Rohner & Lansford, 2017).

IPARTheory describes positive responses from significant others as being central in perceived social acceptance (Rohner & Lansford, 2017). The theory further posits that psychological maladjustment follows when an individual does not receive sufficient positive responses. Specifically, individuals who feel rejected by significant others are likely to feel anxious and insecure (Khaleque & Rohner, 2012), and consequently respond with behavior targeted towards eliciting positive responses from others - which could make them more dependent on such responses over time (Rohner & Lansford, 2017).

The term *dependence* used in IPARTheory refers to both the internal yearning for positive responses from others, as well as behavior associated with obtaining such responses (Rohner & Lansford, 2017). While children may express such behavior by clinging to parents, crying when separated from parents and seeking physical proximity when reunited, adults may show jealousy when perceiving others competing for time and affection, as well as overly seeking reassurance in significant relationships (Rohner & Lansford, 2017). The conceptualization of dependence on positive responses in IPARTheory closely resembles our conceptualization of excessive need for approval, which will be presented and elaborated further in the description of the presently developed measurement of excessive need for approval.

1.4 Development of Excessive Need for Approval from an Addiction Perspective

As discussed, individual differences in need for approval may potentially be grounded in childhood experiences. While much research is focused on the development of common levels of need for approval, little is seemingly known about development of excessive levels of need for approval. We argue that there are certain points of similarity between excessive

need for approval and the development of other addictions (see Section 1.9 “Components of behavioral addiction as framework in development” for an elaborated description). As for substance addictions, these are also commonly said to potentially be linked to childhood experiences (e.g., upbringing environment, family- and peer relationships, and traumatic life events). An important distinction between addictive tendencies in excessive need for approval and substance addiction is that substance addiction requires the individual to consume the substance in question in order for an addiction to form. One can thereby state that childhood experiences affect later development of substance addiction only indirectly, as opposed to addictive tendencies regarding approval-oriented behavior and mental activity.

1.5 Undesirable Effects of High Need for Approval

High need for approval has been associated with a range of negative behaviors and mental states. For example, results presented by Scherer et al. (1972) suggest a positive correlation between need for approval and drug use. Moulton et al., (1998) hypothesized that eating disorder behaviors could function as means to gain approval from others, and their results suggested that various eating disorders are associated with approval motivation. Moreover, the need for approval might be associated with social anxiety. Findings presented by Owen (1987) showed that participants responded to emotional arousal and lower self-esteem by actively seeking approval from others. Karaşar and Baytemir (2018) also found that increased need for approval is associated with social anxiety, and a decrease in reported happiness. As for recent events, Moccia et al., (2020) examined various risk factors associated with psychological distress during the beginning stages of the COVID-19 outbreak. Findings showed that higher scores on the subscale of “need for approval” in the Attachment Style Questionnaire (Feeney et al., 1994), among others, appeared to be such a risk factor.

Behavior motivated by the need for social approval have also been said to function counterproductively in regards to social interaction. Crowne and Marlowe (1964, as cited in

Owen, 1987) have suggested that approval-seeking behaviors tend to offend people, and may even lead to alienation of others, social rejection, and isolation for the individual. Hence, approval-seeking behavior may be thought to harm the individual, and essentially impair normal social interactions (Owen, 1987).

In addition to the before-mentioned effects, an excessive need for approval could also affect the goals and aspirations an individual chooses to prioritize and devote attention to. Kasser and Ryan (1993, 1996) have argued in favor of a distinction of intrinsic and extrinsic aspirations. While intrinsic aspirations are related to goals such as affiliation, personal growth, and community contributions, extrinsic aspirations are related to goals such as attaining wealth, fame, and image - goals which are commonly related to obtaining approval that is contingent on certain accomplishments (Deci & Ryan, 2000).

As will be discussed further below, Deci and Ryan (2000) have also argued that individuals whose basic psychological needs are unsatisfied may resort to pursuing substitutional needs. It may be argued that the pursuit of certain extrinsic goals may be due to such “need substitutes” (see Section 1.3.2 “Need substitute theory” for further discussion of this topic’s relevance to excessive need for approval). Deci and Ryan (2000) have argued that the pursuit and attainment of intrinsic goals, rather than extrinsic goals, seemingly leads to greater satisfaction of basic psychological needs. As mentioned, approval may be contingent on performance that is related to extrinsic aspirations. Hence, one might speculate whether an excessive need for approval may not be beneficial for people’s fulfillment of basic psychological needs and general well-being. Considerable evidence points to several negative mental health consequences of extrinsic aspirations (Deci & Ryan, 2000), a point which also could suggest that excessive need for approval potentially serves to harm the individual in various ways.

1.6 Need for Approval in Light of Approach- and Avoidance Motivation

A distinction between approach- and avoidance-motivated need for approval provides a more nuanced perspective on the need for approval, as well as the consequences of need for approval (Skymba et al., 2022). In children, individual differences in need for approval have been shown to have trade-off effects on well-being through approval-based self-appraisals (Rudolph et al., 2005). Results presented by Rudolph et al. (2005) suggest that need for approval can be viewed as both an approach- and avoidance-based construct when considering its effects on approval-based self-appraisals, and thereby self-worth. According to this distinction, motivation for seeking social approval could either be to obtain positive social judgments in order to enhance self-worth, or to avoid negative social judgments and thereby lowered self-worth. While individuals primarily motivated by gaining positive judgements from others may act in a prosocial manner in an effort to receive positive feedback, individuals who are primarily motivated to avoid negative judgements tend to withdraw from social interactions and spend more time worrying about being accepted (Skymba et al., 2022). The two-dimensionality of need for approval has been supported by a body of factor analytical work (Rudolph, 2021; Rudolph & Bohn, 2014; Rudolph et al., 2005). As the two dimensions were positively correlated in the study by Rudolph et al. (2005), this suggests that some children possess both types of need for approval (i.e., they have a generalized tendency to associate their sense of self-worth with others' judgements and evaluations, be it positive or negative). However, as this correlation was only moderate, this in turn suggests that some children possess either one type or the other (Rudolph et al., 2005).

The distinction of approach-avoidance motivation in regards to approval is consistent with both achievement motivation, in that people could either be motivated by wanting to achieve success or to avoid failure (Atkinson, 1957; as cited in Rudolph et al., 2005; Elliot, 1999; as cited in Rudolph et al., 2005) and, more generally, psychological conceptualizations

that distinguish between behavior motivated by achievement of positive outcomes versus behavior motivated by avoidance of negative outcomes (Skinner, 1953; as cited in Rudolph et al., 2005).

In light of this distinction, one can consider approval-motivated behavior as either reflecting a desire to stand out from the crowd in a positive way by receiving some form of praise (e.g., for one's material possessions, appearance, personal relationships, competence or values), or a desire to blend in by avoiding performing actions one believes to be judged negatively by others. Several authors also refer to the latter as a "need for acceptance" (e.g., Cramer, 2003; Coady & Brown, 1978). Approval can hence be viewed as either confirming perceived positive difference or positive non-difference from other people, and approval-seeking behavior can consequently be thought to be motivated by obtaining these outcomes. Due to the novelty of research regarding excessive need for approval, we found it appropriate to focus exclusively on only one dimension of need for approval, namely approach-motivated need for approval.

1.7 Measures of Need for Approval

Operationalization of need for approval has not been straight-forward throughout times. Need for approval and social desirability have long been considered nearly interchangeable in research (Marlowe & Crowne, 1961; MacGuffie et al., 1970), with need for approval being measured by social desirability scales (e.g., Staub & Sherk, 1970; Lobel & Levanon, 1988). Crowne and Marlowe proposed the Marlowe-Crowne Social Desirability Scale (MCSDS) as a measure of social desirability (Crowne & Marlowe, 1960). As the authors defined social desirability, it "refers to a need for social approval and acceptance and the belief that this can be attained by means of culturally acceptable and appropriate behaviors" (Marlowe & Crowne, 1961, p. 109). The approach of social desirability scales, such as the MCSDS, includes evaluating individuals' socially desirable response tendencies in

order to determine their need for approval (Martin, 1984). Items in social desirability scales are usually formulated in such a way that the most socially desirable response option is highly unlikely to apply to respondents (Dijkstra et al., 2001). If respondents consistently choose such options, this is believed to reflect a high need for approval. The widespread use of MCSDS continued for several decades - as Moorman and Podsakoff (1992) presented in a literature review over 30 years later, over 90% measured social desirability using the MCSDS at the time.

While MCSDS had been widely used as a measure of need for approval for quite some time, controversies emerged regarding its operational accuracy (Shulman & Silverman, 1974). Although social desirability was conceptualized as a need for social approval and acceptance by Marlowe and Crowne, one might speculate that the items in MCSDS at face value do not explicitly focus on obtaining approval. In regards to need for approval, one might argue that MCSDS items are closer to measuring avoidance-motivation (i.e., avoiding disapproval in one's social environment).

However, one might consider need for approval and social desirability as separate constructs, as later research evidently has opted to develop need for approval measures that are not grounded in features of social desirability. Need for Approval Questionnaire by Rudolph et al. (2005) is commonly used at the present time (e.g., Skymba et al., 2022; Eberly-Lewis et al., 2018), in which items are not stated to reflect social desirability. Furthermore, comparisons between another measure of need for approval (i.e., the Martin-Larsen Approval Motivation; MLAM) and the MCSDS “revealed a divergent pattern of correlates with several measures of personality, suggesting a basic difference between the MLAM and MCSDS in their conceptualization of approval motivation” (Martin, 1984, p. 508).

Of the above-mentioned measures, there is a clear lack of measures developed to examine excessive need for approval specifically. Although the need for approval is arguably

innate and essential in social development, it is reasonable to assume that this need could be elevated among a significant number of individuals. A measure aiming to identify excessive need for approval would likely yield valuable insights regarding behavior, mental states, aspirations, and personal relationships.

In order to develop such a measure, we see it as appropriate to use insights from research on behavioral addiction as a framework. This is a novel approach in regards to measuring need for approval. We have chosen this approach as we believe that approval-motivated behavior and mental activity might develop to be highly prominent for some individuals, to an extent that it may become reminiscent of behavior and mental activity related to other behavioral addictions. We believe that what distinguishes common levels of this need from excessive levels is that individuals who have an excessive need for approval may never perceive this need to be fully satisfied. Additionally, we believe that when individuals who have an excessive need for approval receive smaller amounts of approval, the approval intensifies their internal yearning for approval, rather than functioning as a means to satisfy their need for approval (as it may function in individuals with common levels of need for approval). The goal of the present research is to contribute to establishing such a measurement through development of a scale measuring excessive need for approval, namely the Excessive Need for Approval (ENFA)-scale.

1.8 Excessive Need for Approval

As stated earlier, excessive need for approval has not been researched to a great extent to date. There is no formal definition of excessive need for approval to be referred to at this point, nor is there a steady ground to base research regarding this concept on. In relation to this project, we have thus chosen to use our own definition of excessive need for approval, which we believe reflects the concept we wish to explore in a reasonable way; *excessive need for approval is a dependency on positive reinforcement from others, which is stronger than*

what would be considered normal and is perceived as difficult to uphold over time. In the present research, we have developed a measurement of excessive need for approval due to the lack of such a standardized measurement at the present time. Further, we aim to examine the validity and reliability of this measure, as well as how excessive need for approval may be connected to other behavioral addictions, problematic social media usage, relatedness, attachment style, self-esteem and contingencies of self-worth.

1.9 Components of Behavioral Addiction as Framework in Development

Search for approval may be time-consuming, require personal investment and shifts in priorities, while also affecting personal relationships. Although the term “approval addiction” is commonly used in popular culture (e.g., Kelly, 2020), such terminology is not prominent in the research context. We see reason to believe that in some cases, the positive effects of approval over time can lead to the individual becoming quite reliant on getting approval from others, even to a point where one could see addictive tendencies. It may be argued that an excessive need for approval has a sufficient degree of similarity with that of other behavioral addictions, so that it is appropriate to examine this construct from an addiction research perspective. Hence, this is what we have opted to do in the present study.

Addiction is a broad, general term that is commonly used in relation to certain pharmacological substances, such as alcohol or narcotic drugs, that can cause both physical and psychological dependence in individuals. However, an increasing number of arguments have been made against limiting the concept of addiction to include only substance related addiction. Marlatt et al. (1988, p. 224) define addictive behavior as:

“...a repetitive habit pattern that increases the risk of disease and/or associated personal and social problems. Addictive behaviors are often experienced subjectively as “loss of control” - the behavior contrives to occur despite volitional attempts to abstain or moderate use. These

habit patterns are typically characterized by immediate gratification (short-term reward), often coupled with delayed deleterious effects (long-term costs). Attempts to change an addictive behavior (via treatment or self-initiation) are typically marked with high relapse rates.”

Griffiths (2005) and Brown (1993, as cited in Alavi et al., 2012) are among those who have previously argued for the existence of universal principles surrounding behavioral addiction. As Alavi et al. (2012) explored similarities between substance addiction and behavioral addiction, they concluded that the symptoms overlapped in large - apart from the fact that behavioral addiction does not involve addiction to a certain substance, but rather to performing a certain kind of behavior and/or to the feelings associated with performing that behavior.

In the process of developing a scale for measuring excessive need for approval, we altered items so that they reflect criteria in each of the components proposed by Griffiths’ (2005) components model of addiction, in such a manner so that they reflect excessive need for approval. This way of using Griffiths’ components model in development of novel measures for behavioral addictions has been adopted by multiple researchers (Terry et al., 2004; Andreassen et al., 2012; Orosz et al., 2016a; Orosz et al., 2016b; Andreassen et al., 2015; Andreassen et al., 2018a; Andreassen et al., 2018b; Costa et al., 2019; Bóthe et al., 2018; Jameel et al., 2019; Lemmens et al., 2009).

The first edition ENFA scale consists of 30 items, five corresponding to each of these components. Griffiths (2005) argues that the way of determining whether behaviors can be classified as addictive is to compare them against clinical criteria for established substance-addictions. The six components for addiction proposed by Griffiths (2005, pp. 193-195) are described as follows:

1. *Salience* - The activity in question has become highly important in the individual's life, so that it dominates their thinking, feelings and behavior.
2. *Mood modification* - The activity is used by the individual in order to alter their mood in a positive way.
3. *Tolerance* - Increasing amounts of the activity is required in order to achieve previous positive effects.
4. *Withdrawal symptoms* - When the activity is discontinued or suddenly reduced, the individual experiences negative psychological and/or physical effects.
5. *Conflict* - Partaking in the activity leads to interpersonal conflict (e.g., with their spouse, children, relatives or friends), compromising work or education and/or other social and recreational activities.
6. *Relapse* - A tendency to revert to earlier patterns when attempting to reduce or quit the activity.

While developing a scale for measuring excessive need for approval, we have included items that are related to each of these components, concerning need for approval in various contexts. Our assumption is that using these six components as a framework in development of a measure of excessive need of approval will measure this construct in an appropriate manner.

1.9.1 Controversies Regarding Modifying Addiction Criteria to fit “new” Addictions

Although our case is not to pathologize an excessive need for approval, but rather to use components of addiction as a framework in development, it may be interpreted as an argument that such an excessive need should be considered as a “new”, undiscovered addiction (which we don't think is necessary). As for formally established behavioral addictions, gambling addiction and gaming addiction are the only formally recognized behavioral addictions to this date. Gambling addiction is described in the Diagnostic and

Statistical Manual of Mental Disorders (5th ed.; DSM-5; Reilly & Smith, 2013), while gaming addiction has recently been included in ICD-11 (World Health Organization, 2020). While this list is relatively short compared to substance addictions, arguments towards further behavioral addictions have been made. Several authors have argued to classify a wide range of excessive behaviors as addictions, this in part by modifying existing addiction criteria in order to reflect the behavior in question (e.g., exercise addiction; Terry et al., 2004; Facebook addiction; Andreassen et al., 2012; addictive tendencies in usage of social media and video games; Andreassen et al., 2016; social media addiction; Balakrishnan & Griffiths, 2017; problematic series watching; Orosz et al., 2016a; problematic Tinder use; Orosz et al., 2016b; shopping addiction; Andreassen et al., 2015; sex addiction; Andreassen et al., 2018a; tanning addiction; Andreassen et al., 2018b; love addiction; Costa et al., 2019; dance addiction; Maraz et al., 2015; problematic pornography consumption; Bóthe et al., 2018; smartphone addiction; Jameel et al., 2019).

Whether or not certain behaviors should be classified as addictions is a largely ongoing debate. Several authors have expressed concern regarding this approach to behavioral addiction research (e.g., Billieux et al., 2015; Panova & Carbonell, 2018). According to Billieux et al. (2015), the approach of modifying existing addiction criteria in order to reveal new behavioral addictions – a confirmatory approach – could be problematic in the sense that many behaviors are potentially being over-pathologized. The authors argue that this development could lead to almost any everyday behavior being considered an addiction, which could weaken the area of behavioral addiction research (Billieux et al., 2015).

Griffiths (2017) has been prominent in arguing favorably of a confirmatory approach, as he presented a components model of behavioral addiction. He has later responded to this critique, in part by highlighting problems regarding the operationalization of the components in certain psychometric instruments that are based on the components model (Griffiths,

2019). In this regard, Griffiths (2019) emphasized that a key issue is that all components are originally operationalized in a negative, rather than positive way, and that this has not always been the case in modified versions of behavioral addiction measurements. In example, Griffiths (2019) wording of the “Salience” component mentions an individual's negative psychological behaviors in the experience of having thoughts preoccupied and feelings dominated by a certain activity. Griffiths (2019) has argued that operationalizing the components with wording that focus on the negative aspects of an individual's psychological behavior is necessary for his component model to function, explaining why it's an issue when modified versions change the operationalizations in the opposite direction. Moreover, Griffiths has previously stated that the difference between a “healthy enthusiasm” and an addiction is that the former adds to life while addictions take away from it (Griffiths, 2005, p. 195). Additionally, all six components must be present in a behavior in order to be considered an addiction (Griffiths, 2019).

While Griffiths' (2005) components model approaches behavioral addiction research by unifying inclusion criteria, Kardefelt-Winther et al. (2017) has argued in favor of four exclusion criteria regarding the matter. According to these, a behavior should not be considered a behavioral addiction if 1) “The behavior is better explained by an underlying disorder (e.g., a depressive disorder or impulse-control disorder)”, 2) “The functional impairment results from an activity that, although potentially harmful, is the consequence of a willful choice (e.g., high-level sports)”, 3) “The behavior can be characterized as a period of prolonged intensive involvement that detracts time and focus from other aspects of life, but does not lead to significant functional impairment or distress for the individual”, and 4) “The behavior is the result of a coping strategy” (Kardefelt-Winther et al., 2017, p. 1710).

If these criteria were to be applied to our measurement of excessive need for approval, results obtained could not be said to reflect a behavioral addiction. Arguments can be made

regarding approval seeking being related to underlying disorders (such as social anxiety). As behaviors related to seeking approval are consequences of willful choice, it would not be considered as an addictive behavior. Nor does common approval seeking behavior lead to functional impairment or distress for the individual, as these behaviors are not considered to be significantly dangerous, harming, or highly distressing. Lastly, it would also make sense to state that the purpose of approval seeking behaviors is to cope with one's underlying insecurities. Although the present research does not intend to argue the case of excessive need for approval being considered a pathological addiction, it is worth highlighting certain counterarguments to these claims made by Kardefelt-Winther and colleagues, considering that we have used the same approach as several authors have been criticized for in this regard.

As Griffiths (2017) has noted, the criteria presented by Kardefelt-Winther et al. (2017) would exclude almost any form of addiction. A great deal of well-known and formally recognized substance addictions would not measure up to all four criteria - likewise, this argument applies to the formally recognized behavioral addiction of pathological gambling (Griffiths, 2017).

As for the first criteria, Griffiths points to the findings of Blaszczynski and Nower (2002), as they have shown that "many substance addictions are symptomatic of other underlying pathologies" (Griffiths, 2017, p. 1719). Moreover, he highlights that the pathways model of pathological gambling by Blaszczynski & Nower (2002) demonstrates that certain gambling addictions are "as a consequence of other more global comorbidities and that the behavior is symptomatic of these more primary disorders" (Griffiths, 2017, p. 1).

Griffiths (2017) further argues that utterly few substance-related addictions do not start off as a willing engagement (e.g., drinking alcohol or taking drugs). This argument likewise applies to addictive behaviors, such as gambling. Regarding the last criteria by Kardefelt-

Winther et al. (2017), Griffiths (2017) refers to evidence suggesting that many substance addictions are used as coping strategies (Shiffman, 1985, as cited in Griffiths, 2017).

Backed by these arguments, Griffiths (2017) argues against Kardefelt-Winther et al. (2017) in that it would be most appropriate to continue on forward with behavioral addiction research by classifying addictions according to the similarities in core components of addiction. Moreover, previous research has found support for the component model of addiction (e.g., Jameel et al., 2019). We thereby see it as appropriate to use Griffiths' components model of addiction (Griffiths, 2005) as a framework in developing the ENFA scale.

Perhaps counterintuitively, our intention is not to argue the case for an previously undiscovered "approval addiction". An important distinction between excessive need for approval and other addictions is the overall wide range of behavior and mental activity that is related to the need for approval. While both substance and behavioral addictions are characterized by a set of key features, such features of excessive need for approval may be much less recognizable. Behavior and mental activity that stems from an excessive need for approval can take many forms, due to arguably being largely affected by individual characteristics and environmental circumstances. However, apart from this distinction, approval-related behavior and mental activity may have certain aspects of similarity with that of behavioral addictions, which is why we have opted to explore this construct in light of components of behavioral addiction.

1.10 Constructs Related to Need for Approval

In order to investigate the construct validity of the ENFA scale, we have included measures of demographics, problematic social media usage, gambling addiction, gaming addiction, narcissism, attachment style, relatedness, self-esteem, and the contingency of approval on self-worth. Evidence discussed below suggests a relationship between need for

approval and these constructs. In turn, we argue that an expected relationship between measures of these and the ENFA scale would collectively strengthen the construct validity of the ENFA scale, (i.e., the extent to which the questionnaire actually measures the construct it is supposed to measure; Cozby & Bates, 2015, p. 105). We are also going to measure convergent validity for the final ENFA scale (i.e., the extent to which the questionnaire is related to scores on the same type of questionnaires or similar constructs with large theoretical overlap; Cozby & Bates, 2015, p. 108).

1.10.1 Demographics

Previous studies have found that women tend to score higher on the need for approval measures than men (e.g., Ardenghi et al., 2020; Calvete & Cardeñoso, 2005). Such results are in line with other authors' beliefs. Calvete and Cardeñoso (2005) have pointed out that several authors suggest that women's self-esteem might be more dependent on others' feedback, making them more concerned with abandonment and rejection by others - a point which they argue to be consistent with their discovered correlation between gender and need for approval. There does exist some contrary evidence (Kalaman & Becerikli, 2020, Ahmed et al., 2021). While Kalaman and Becerikli (2020) found that men score higher on sensitivity to judgements from others, Ahmed et al. (2021) found the opposite pattern in regards to need for approval as a dimension of perfectionism. Although these results speak against women having a higher need for approval than men, Kalaman and Becerikli (2020) also found that women scored higher on leaving positive impressions, while the sample used by Ahmed et al., (2021) was a specific sample from the athlete population. It may be speculated that these contradicting results would not be generalized to all men and women. As these contradicting results are produced by studies that arguably do not include a measure of general need for approval, we expect to see that women score higher than men in the present sample, as in line with evidence supporting this relationship.

As previously mentioned, adolescence is said to be largely characterized by increasing salience of peer group belonging and approval (Rankin et al., 2004; Somerville, 2013; Westenberg et al., 2004) and thus making the individual's self-worth more vulnerable to effects of peer evaluation and approval (Brown, 1990; Harter, 1998; Harter et al., 1998), a large amount of evidence suggests that need for approval tends to again decrease with age after adolescence (Kalaman & Becerikli, 2020). Such a relationship between the ENFA scale and age would thus further strengthen the construct validity of the scale. As our sample is limited to participants over the age of 18, we expect to see that ENFA scores progressively decrease with their age.

Though there has been little research regarding the relationship between need for approval and level of education, we are interested to see whether such a relationship would be present in our dataset. It would perhaps be reasonable to assume that people who strive more to achieve various goals in life do so partly to impress others and receive some sort of acknowledgement. We thus expect to see a positive correlation between ENFA scores and level of education.

1.10.2 Self-esteem

Looking into self-esteem, one will find several definitions and explanations, many of them which seem alike to similar concepts like self-worth and self-confidence. According to Berk (2014, s. 461) self-esteem is a component of our self-concept that can be defined as “the judgment we make about our own self-worth and the feelings associated with those judgments”. According to this definition, self-worth can be seen as an aspect of self-esteem. This is in line with Crocker & Knight (2005), who argue that the importance of self-esteem resides in what people believe they need to be or do, to be worthy or have value as a person.

SDT by Deci and Ryan (1995; as cited in Ryan & Brown, 2006) distinguishes between “true” and “contingent” self-esteem. True self-esteem is described as the “optimal” form of

self-esteem (Ryan & Brown, 2006), and is said to be less dependent on others approval (Ali et al., 2022). On the other hand, contingent self-esteem is described as being rather unstable and affected by whether one meets certain internalized societal standards (Hallsten et al., 2012). Contingent self-esteem may result from either receiving conditional regard from significant others, or from frustrated basic psychological needs of relatedness, autonomy or competence (Deci & Ryan, 2000; Hallsten et al., 2012). One could speculate whether contingent self-esteem may be associated with development of excessive need for approval.

1.10.2.1 Trait and State Self-Esteem.

Also, there is no clear consensus on whether self-esteem should be considered a trait or a state, as there have been previous arguments for both views (Crocker and Wolfe, 2001). However, according to Crocker and Wolfe (2001), self-esteem refers to both global and domain-specific evaluations of various aspects of oneself. These evaluations can further either be thought of as a trait that is relatively stable over time, or as a state that changes across circumstances and situations, somewhat around the level of the global evaluations. Regarding self-confidence mentioned above, it can be viewed as a partly overlapping concept, but there is still an important difference. Self-confidence can be defined as one's belief that one can successfully execute a desired behavior (Feltz, 2007, p. 278). Though not explicitly stated by Crocker and Wolfe (2001), we believe that domain-specific trait- and state-based evaluations closely resemble conceptualizations of self-confidence, as domain-specific evaluations seem to be grounded in specific skills on various domains, rather than broader evaluations of oneself.

1.10.2.2 Internal versus External Sources of Self-Esteem.

Several authors have expressed support for a multidimensional approach to self-esteem. Franks and Marolla (1976, p. 325) presented a literature review supporting a perspective which posits that self-esteem is a result of two separate processes; 1) “the

reflected appraisals of significant others in one's social environment in the form of social approval”, and 2) “the individual's feelings of efficacy and competence derived from his own perceptions of the effects he has on his environment”. While the former process mentioned is said to be related to self-worth, the latter is associated with feelings of competence and one's impact on the environment. It may be assumed that the first process may be related to what Deci and Ryan (1995; as cited in Ryan & Brown, 2006) have conceptualized as contingent self-esteem, while the second process may be related to what they refer to as “true” self-esteem that is less affected by approval from others.

In line with the multidimensional approach to self-esteem, there have been suggestions of a distinction between internal and external sources of self-esteem (Franks & Marolla, 1976). While internal sources of self-esteem remain more constant and stable over time, external sources are uncertain and commonly dependent on social approval. White (1963; as cited in Franks & Marolla, 1976) has argued that although both internal and external sources are important for self-esteem, individuals who rely solely on external sources become unhappy and insecure. It can be thought that preoccupation with external sources of self-esteem might overshadow focus on internal sources, which may have undesirable consequences for the individual.

It may further be reasonable to assume that people with an excessive need for approval rely largely on external sources of self-esteem. Insights from research on excessive need for approval may be valuable to reveal such unfortunate patterns.

1.10.2.3 The Relationship Between Self-Esteem and the Need for Approval.

In addition to the distinction between sources of self-esteem mentioned above, another explanation for the relationship between self-esteem and need for approval may be found in the sociometer model, which is one of several competing theoretical models that

describe the relationship between need for approval, (trait) self-esteem and the contingency of approval on self-worth.

The sociometer model (Leary et al., 1995) posits that individual self-esteem is related to whether people are aware of the effect that approval has on their self-worth (Lemay & Ashmore, 2006). In other words, people's trait self-esteem is contingent on social approval, whether they are aware of this or not. This supports the notion that people whose approval needs are fulfilled will have higher self-esteem than those whose approval needs are not. Self-esteem is thereby presumed to function as a "sociometer" which tells us whether a person's need for approval is fulfilled (Leary & Ashmore, 2006). Lemay and Ashmore (2006) examined the sociometer model, along with two other models offering differing explanations for the same relationships, and found large support for the sociometer model. According to the sociometer model, how people rate the importance of approval regarding their self-worth is a consequence, rather than a cause, of their self-esteem (Leary & Ashmore, 2006).

The sociometer model further posits that a consistent lack of approval will lead to people becoming increasingly more aware of the effect that approval has on their self-esteem, thereby leading to them to rate approval as an important determinant of their self-worth (Lemay & Ashmore, 2006). On the other hand, people who are used to receiving approval on the regular tend to take this for granted, and consequently rate approval as less important for their self-worth (Lemay & Ashmore, 2006). It may be posited that an excessive need for approval is never fully satisfied - and thus not fulfilled by daily-life interactions. In line with the sociometer model, there is a potential for a three-way correlation between excessive need for approval, self-esteem and social approval contingency beliefs. Unfulfilled approval needs may lead to low (trait) self-esteem and generally lower well-being. Subsequently, an inverse relationship between ENFA scores and measures of self-esteem, an inverse relationship between self-esteem and social approval contingency beliefs, along with a positive

relationship between ENFA scores and social approval contingency beliefs, would be in line with the sociometer model.'

1.10.3 Contingencies of Self-Worth

Need for approval is evidently affected by individual beliefs about what one's self-worth is contingent on. Several authors refer to need for approval as a product of the extent to which individual self-worth is contingent on social approval (Rudolph & Bohn, 2014; Harter et al., 1996).

As mentioned earlier, Rudolph et al. (2005) found that children seem to seek approval to enhance existing levels of self-worth or avoid lowered self-worth. Furthermore, Harter and colleagues (1996) have found that children whose self-worth is contingent on social approval reported greater preoccupation with peer approval, as well as lower levels of both self-worth and received approval. Additionally, these children perceived greater fluctuations in peer approval and self-worth. The relationship between excessive need for approval and self-worth is hence of high interest to the present research.

Crocker and Wolfe (2001) suggest that people differ in what domain their self-worth is contingent on. This is reflected in individual self-worth contingency beliefs (i.e., what domain(s) people perceive their own self-worth to be contingent on). The authors have proposed a typology that categorizes self-worth contingency beliefs into seven domains: 1) approval from others, 2) physical appearance, 3) outdoing others in competition, 4) academic competence, 5) family love and support, 6) being a virtuous or moral person, and 7) God's love.

Of these contingencies, one is explicitly related to receiving social approval. We argue that if scores on the ENFA scale were to demonstrate a positive relationship with the contingency of approval on self-worth, this would strengthen the convergent validity of the ENFA scale.

1.10.4 Problematic Social Media Usage

As previously mentioned, need for approval is commonly described as an important motive for social media usage (e.g., Jong & Drummond, 2016; Savci et al., 2021). During the past decade, there has been a significant increase in users of social media - from 970 million active users in 2010, to 4.48 billion users in July 2021 (Dean, 2021). Out of all internet users worldwide, 93.33% are currently using social media actively (Dean, 2021). Valuable insights may come from research regarding the relationship between social media usage and need for approval, as it might be speculated that social usage could function as means to gain social approval. If so, it is likely that people with an excessive need for approval could use social media in problematic ways. It has been suggested that a lack of approval (through the form of “likes” on posts made by the user) affects people negatively (Reich et al., 2018). This might suggest that receiving approval may serve as an important motive for posting content on social media. Evidence further suggests a relationship between need for approval and social media usage. Min and Kim (2021) found that the need for approval was associated with lying about self-presentation on social media. Results presented by Sciara et al. (2021) show a positive correlation between young adults' need for approval and their general tendency to go public on social media. Steers et al. (2016) demonstrated that need for approval seems to have a moderating effect on the relationship between Facebook usage-related anxiety and extraversion. Liang (2017) found positive relationships between need for approval, social media disorder, and depression. In a recent meta-analysis, Sun and Zhang (2021) found that attachment styles characterized by high need for approval are positively related to social media addiction. Kalaman and Becerikli (2020) did also find evidence suggesting a relationship between social media usage and need for approval. Based on the existing literature, we expect a positive relationship between ENFA scores and problematic social media usage.

1.10.5 Gambling Addiction and Gaming Addiction

As gambling- and gaming addictions are the only two formally recognized pathological behavioral addictions (Reilly & Smith, 2013; WHO, 2020), we have chosen to include these as validity measures for the ENFA scale. Though it, to our knowledge, does not exist any prior studies that have examined a relationship between need for approval and these addictions specifically, arguments can be made that individuals who are inclined to develop certain behavioral addictions are more susceptible to exhibit other addictive tendencies in behavior which can be considered to be addictive in nature.

It might also be speculated that the need for approval could be a contributing factor for these behavioral addictions. Using gaming as an example, Lemmens et al. (2011) states that people who have low self-esteem and/or are not socially competent are more likely to develop signs of pathological gaming. In addition, Williams et al. (2008) found that achievement was one of the biggest motivations for playing video games, as well as social reasons. One might argue that the need for approval might be a motivating factor in gamers with low self-esteem and/or social incompetence, who then might play video games to gain a sense of achievement and social relations. The same could be argued for in gambling addiction. Gambling is usually related to emotional distress and low self-esteem (Kaare et al., 2009). According to Baumeister (1997), gambling is a self-defeating behavior in that it often undermines self-regulation. Such self-defeating behaviors are said to be linked to the individual's self-appraisal and self-esteem (Kaare et al., 2009). Furthermore, the five-factor gambling motivation model proposed by Lee et al. (2007) includes socialization as a key motivational factor in pathological gambling, based on previous empirical research about gambling motivations. We thus see it fitting to examine susceptibility to these addictions among participants in the present sample, and expect to see a moderate positive relationship between these measures and our measure of excessive need for approval in both cases.

1.10.6 Narcissism

Narcissism is said to have become more prominent in modern times (Remes, 2016), and can be generally described as a personality trait that is characterized by entitlement and conceit (Neave et al., 2020). Montebanocci et al. (2004) suggests that narcissism has a positive relationship with need for approval. Narcissism has also been shown to correlate positively with self-esteem (Emmons, 1987; Raskin & Novacek, 1989). However, Rhodewalt et al. (1988, as cited by Montebanocci et al., 2004) showed that people who score high on narcissistic personality traits are subject to common mood-swings and greater emotional reactivity. Montebanocci et al. (2004, p. 886) has stated that “emotional inconstancy and intense emotive susceptibility are closely connected to a general instability in self-esteem” - i.e., while people who score high on narcissistic personality traits may show higher ratings in self-esteem than others, this self-esteem is more fragile and dependent on external feedback. Such a pattern may be argued to be in line with the distinction between true and contingent self-esteem (Deci & Ryan, 1995; as cited in Ryan & Brown, 2006), with these people having contingent self-esteem. This is supported by Zeigler-Hill et al. (2008) who found that one type of people with narcissistic tendencies tends to seek approval from others in order to confirm or improve their self-esteem. Ironically, it might have the opposite effect. If these individuals don't get the approval they need, this approval-seeking tendency and reliance on social approval might make the already fragile self-esteem even more unstable and cause people with narcissistic tendencies to be more vulnerable to negative experiences, such as rejection or failure (Zeigler-Hill, et al. 2008). We hence see it as appropriate to expect to see a positive relationship between narcissism and ENFA scores.

1.10.7 Attachment Style

Bowlby (1969, as cited in Huang S. , 2020, para. 2) defines attachment as a “lasting psychological connectedness between human beings”, and further describes attachments as

being formed through repeated acts of “attachment behaviors” or “attachment transactions” (which is described as a continuing process of seeking and maintaining a certain level of proximity to other individuals; Huang S. , 2020, para. 2). Bowlby (1982/1969; as cited in Mikulincer et al., 2003; 1973; as cited in Mikulincer et al., 2003) formulated attachment theory, which conceptualized attachment to be a universal human need to form affectional bonds with others. According to attachment theory, individuals develop one out of several attachment styles during early childhood interactions, which continues on into adulthood and affects later affectional relationships (Gorrese & Ruggieri, 2012). As mentioned earlier, parental influence is said to be crucial in attachment during the early life stages, while peer relationships have been shown to become more prominent in this regard during adolescence (Rudolph et al., 2005; Nickerson & Nagle, 2005).

Despite widespread research on attachment styles, there is no consensus regarding dimensions of attachment, neither in structure or classification (Fossati et al., 2003). This has thereby led to development of several models of attachment styles, using different dimensions and thereby classifying attachment styles in different categories. The Attachment Style Questionnaire (ASQ; Feeney et al., 1994) consists of five attachment styles (i.e., “Confidence”, “Discomfort with Closeness”, “Need for Approval”, “Preoccupation with Relationships”, and “Relationships as Secondary”). Evidently, need for approval is central in ASQ’s conceptualization of attachment styles, as it has implemented “Need for approval” as a separate factor measuring attachment anxiety (Moccia et al., 2020). While attachment avoidance has been defined as a fear of interpersonal intimacy, strong need for self-reliance, and a reluctance to self-disclosure (Wei et al., 2007), attachment anxiety can be defined as fear of interpersonal rejection, distress when significant others are unavailable, and a high need for approval (Yu et al., 2019).

Another widely used measure of attachment style is the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991) fourfold typology of adult attachment, namely secure, preoccupied, fearful and dismissing attachment styles. Each of these attachment styles can be placed along two dimensions; 1) the person's model of self and 2) the person's model of others. Whether these models are positive or negative is said to determine their individual attachment style. A positive model of self indicates that the person has internalized a sense of their self-worth - on the other hand, a negative model of self reflects a dependency on others' approval in close relationships (Bartholomew & Shaver, 1998, pp. 30-31). Likewise to ASQ, the need for approval is a central determinant for attachment style in RQ. Since both preoccupied and fearful attachment styles are associated with a negative model of self, we expect to see a positive relationship between these attachment styles and excessive need for approval. Moreover, while the preoccupied attachment style involves a positive model of others, a negative model of others is predominant in the fearful attachment style. Though a stronger need for approval is likely to be present in both attachment styles, assuming that this need is stronger among people who view others in a positive light is arguably reasonable. Thus, a somewhat larger correlation between preoccupied attachment style and excessive need for approval is expected in the coming analyses.

On the other hand, secure and dismissing attachment styles are characterized by a positive model of self. While the secure attachment style is also characterized by a positive model of others, the dismissing attachment style is characterized by a negative model of others. As a positive model of self is associated with an internalized sense of self-worth that is less affected by social judgements and evaluations, we expect that both of these attachment styles will correlate inversely with our measure of excessive need for approval. There is arguably not enough evidential background to assume the strength of the correlations relative to one another.

1.10.8 Relatedness Need Satisfaction

Basic Psychological Needs Theory (BPNT) is one of the six mini-theories which constitute Self-Determination Theory (SDT) proposed by Deci and Ryan (2000). This theory argues for the existence of three basic psychological needs, the satisfaction of which is universally essential for human thriving. These needs are said to be autonomy, relatedness, and competence - when one of these needs are frustrated (i.e., not satisfied), this is argued to result in a number of negative consequences, e.g., maladjustment and psychopathology (Vansteenkiste & Ryan, 2013).

The need for relatedness can be understood as a desire to feel connected to others in terms of mutual interpersonal love and care (Deci & Ryan, 2000). It may be argued that a thwarted need for relatedness is central in development of excessive need for approval. When the need for relatedness is frustrated, a common response could be to seek approval from personal relationships in order to obtain relatedness need satisfaction. As mentioned earlier, Deci and Ryan (2000, p. 249) have argued in favor of such responses to frustration of basic psychological needs, which are referred to as “need substitutes” or “compensatory motives”. Assuming that excessive approval seeking is a form of need substitute, we expect to see an inverse relationship between ENFA-6 scores and relatedness need satisfaction.

1.11 Aim of Research

In this cross-sectional study, we aim to investigate the concept of excessive need for approval, and thereby increasing the interest for this concept in future research. We think it is reason to suspect that need for approval might play an important role in many people’s everyday lives, and that people with excessive levels of this need may lack awareness of its impact on them. This could in part be due to insufficient scientific knowledge regarding this concept. We believe that an excessive need for approval could potentially have a negative effect on quality of life and general well-being, where it might lead to a shift in priorities

(e.g., economical, time management, or decision making). Excessive need for approval could also be thought to negatively affect the relations the individual has to family, friends, or spouse, in a similar way to those of other addictions. A measurement specifically tailored to excessive need for approval might provide valuable insights into abnormal approval seeking patterns and their consequences.

To date, there does not exist any recognized measure of excessive need for approval like this, as far as we know. Hence, in relation to our master's thesis in social and cognitive psychology at the University of Bergen, our goal is to explore the subject of excessive need for approval by developing a scale which measures this construct. In development of the Excessive Need for Approval (ENFA)-scale, we aim to use Griffiths' (2005) components model of addiction as a framework. Furthermore, we will assess the validity of the scale by examining whether scores on the scale are related to other concepts including narcissism, relatedness, problematic social media usage, gambling- and gaming addiction, contingencies of self-worth, and self-esteem. Specifically, we aim to make a short scale (ENFA-6) with one item representing each of the addiction components outlined by Griffiths (2005).

1.12 Hypotheses

Our 1st hypothesis is that our data will support a one-dimensional factor structure for the final version of the ENFA scale, with high factor loading ($> .60$ for all items). This also posits that fit indexes, namely root mean square error of approximation (RMSEA), comparative fit index (CFI), and Tucker–Lewis Index (TLI), will show good or at least acceptable fit with the data.

Our 2th hypothesis is that reliability of the final version of the ENFA scale will be good, in terms of both a 4-week test-retest reliability and internal consistency (Cronbach's $\alpha > .80$).

As for demographic variables, our 3rd hypothesis concerns that “level of education” will be positively correlated with ENFA scores, “age” and “gender” will inversely correlate (meaning that females are expected to score higher on ENFA than males).

Our 4th hypothesis is that ENFA scores will correlate inversely with self-esteem.

Our 5th hypothesis is that ENFA scores will correlate positively with the contingency of approval on self-worth.

Our 6th hypothesis is that ENFA scores will correlate positively with problematic social media usage.

Our 7th hypothesis is that correlations between the ENFA scale and gaming- and gambling addiction will be moderate and positive.

Our 8th hypothesis is that ENFA scores will be correlated positively with narcissism.

Our 9th hypothesis is that ENFA scores will show a large, positive correlation with the preoccupied attachment style, a moderate positive correlation with the fearful attachment style, as well as an inverse relationship with secure and dismissive attachment styles.

Our 10th hypothesis is that ENFA scores will be correlated inversely with relatedness need satisfaction.

2. Materials and Methods

2.1 Participants

The sample was recruited using Prolific (an online platform that connects researchers with participants). Pre-screening filters for gender, age, and ethnicity were applied in order to get a representative sample from the UK population. There were 400 respondents in total, which was the intended sample size for the present data collection. All participants had to consent to participating in this research (See Appendix A for full letter of consent). An exclusion criteria of a minimum time limit to complete the survey (8 minutes) was set. Scores

from 14 participants were eliminated from further analyses based on this exclusion criteria, as they used a shorter time in completing the survey.

Further scores from 5 participants were eliminated due to not completing all questionnaires that were needed to include their data in data analyses. In order to ensure that participants had read the items thoroughly, we included two random items at various points throughout the questionnaire, which were assumed that all participants were capable of responding correctly to (i. e., “What is the name of the Queen of England?”, “What is the capital of England?”). All participants responded correctly to these control items and no further elimination of participants was conducted based on these criteria.

After the elimination process, there were a total of 381 respondents. In all, 50.1% of the participants were women, and 49.3% were men. Two participants (0.6%) answered “other” or “prefer not to say” in terms of gender. Age ranged from 19 – 89 years. Regarding education, 122 (32.1%) participants had not completed higher education (i.e., highest level of completed education being high school, vocational school, primary school, or none), whereas 259 (67.9%) had completed higher education (i.e., bachelor’s degree, master’s degree or PhD). The participants were paid approximately an hourly rate of 10£ through Prolific for taking the survey.

In order to ensure reliability of the ENFA-6, a retest was conducted four weeks after the initial data collection. An email with an invitation to complete the survey was sent to all respondents who had consented to this during initial participation by providing us with their unique Prolific-ID. 183 participants completed the follow-up survey containing only the items of the final version of the ENFA scale.

2.2 Procedure

In the initial stage of development of the ENFA scale, a pool of 30 items was included in the initial data collection, five items for each component in the taxonomy proposed by

Griffiths (2017). In addition, there was a final item probed to indicate whether one used any social media regularly - if “yes” was checked, the subject was presented with the “Bergen Social Media Addiction Scale (BSMAS)” (see Appendix F.). We developed a Norwegian and an English version of the ENFA scale, and the language translation was copy-edited professionally by Semantix Translations Norway.

The aforementioned 30 items were included in a self-report questionnaire along with additional questions about the subject’s demographics, social media usage (if indicated to be relevant), relatedness to other people, self-worth contingency on approval, self-esteem, narcissistic personality traits, attachment style, as well as gaming- and gambling addiction.

The questionnaire was distributed through Prolific, which is an online research service designed to recruit participants and manage payment for their work as respondents. The questionnaire was made available online 11th of February 2022, and was taken down after two hours, as we then had reached the intended sample size of 400 participants. Information about the study purpose was included in the consent form, which was provided immediately after participants clicked the link to the questionnaire. Prior to the participants starting to complete the questionnaire, they were presented with an option to receive an invitation for the follow-up data collection. This required them to enter their unique Prolific ID-number. A description of this research project was sent to the Regional Ethics Committee for Medical Research (REK). The project was deemed outside the scope of the Health Research Act, cf. section 2, and was therefore allowed to carry on without the approval of REK. In addition, the Norwegian Centre for Research Data (NSD) evaluated the procedures used in the current project to be satisfactory.

2.3 Instruments

2.3.1 Demographics

Participants were asked for information about their age, gender, and level of education. As for gender, the response options included “Female”, “Male”, “Other” and “Prefer not to say”. Response alternatives for level of education ranged from “None” to “Phd”, including “Primary”-, “High”-, and “Vocational school”, in addition to “Bachelor’s degree”- and “Master's degree”.

2.3.2 *Excessive Need for Approval (ENFA) Scale*

A pool of 30 items was included in the initial data collection. For each of the components in Griffiths’ (2017) components model of behavioral addiction (salience, mood modification, tolerance, withdrawal, conflict, and relapse), five items were constructed (See Table 1). This produced 30 items for the initial version of the scale, namely the ENFA-30.

Table 1

Initial Pool Items for the Excessive Need for Approval Scale

No.	Dimensions	Item text
1	Tolerance	The approval I receive in a given context needs to become increasingly more prominent over time for me to feel satisfied
2	Tolerance	I’ve noticed that I seek approval more and more often
3	Tolerance	I’ve noticed that I need approval from increasingly more people in order to feel good
4	Tolerance	It takes more approval in order for me to feel satisfied now than it did before
5	Tolerance	I’ve noticed that I need approval on increasingly more areas or personal traits in order to feel good*
6	Mood modification	I experience a rush of positive emotions whenever I receive approval from others
7	Mood modification	Whenever I have a bad day, I experience a stronger need for approval
8	Mood modification	I often seek approval to forget about my problems
9	Mood modification	I often seek approval to avoid feeling down*
10	Mood modification	I seek approval to feel good and satisfied with myself
11	Relapse	I have made attempts to reduce my need for approval, without succeeding with this

12	Relapse	I have tried to convince myself that I am a good and capable person, but do not manage to believe this without receiving approval from others
13	Relapse	I have the tendency to go back to seeking approval, even though I know I shouldn't
14	Relapse	I can't seem to reduce my focus on getting approval, even though I am tired of having this focus
15	Relapse	I've tried to replace my focus on approval with something else, but in the long run I can't seem to do it*
16	Saliency	It's important to me that others give me approval for the things I do well, or things about myself that I'm pleased with
17	Saliency	My behavior is greatly affected by my need for approval*
18	Saliency	I think a lot about what I can do to receive approval from others
19	Saliency	If I do something great, I talk about it to others in order to receive approval
20	Saliency	Approval has a strong influence in my mood
21	Withdrawal	I feel uneasy if I don't get approval from others
22	Withdrawal	Lack of approval from others has a strong influence on my feelings
23	Withdrawal	I tend to crave approval if a lot of time goes by without getting it*
24	Withdrawal	I tend to feel like a failure in times when I receive little to no approval
25	Withdrawal	I often feel frustrated with not having enough opportunities to receive approval
26	Conflict	I have given up on numerous projects or tasks due to not receiving enough approval on these areas
27	Conflict	I have neglected certain areas of my life that are important for me (e.g., school, work, hobbies) due to my approval seeking
28	Conflict	People have gotten annoyed with me for having a high need for approval
29	Conflict	My need for approval affects my relations negatively (e.g. with my family, spouse, colleagues or my boss).
30	Conflict	I can't seem to stop seeking approval, even though I suspect it's annoying for others*

Note. The instructions was: Tick the response alternative that best describes you. Do this for each item. The response options were “strongly disagree (1), disagree (2), neither disagree nor agree (3), agree (4) and strongly agree (5)”

The response alternatives to all above-mentioned items were presented on a Likert-scale, ranging from strongly disagree (1), disagree (2), neither disagree nor agree (3), agree (4) and strongly agree (5). Higher scores indicate a higher level of need for approval.

Lastly, a final and 31st item in the initial version of the ENFA-scale concerned whether the subject regularly took part in social media activity or not. This item determined

whether the subject was asked to complete the 6-item Bergen Social Media Addiction Scale (BSMAS), described below. Response options to this item were either yes or no. To see the ENFA-30 and ENFA-6 questionnaires in full, see Appendix B and C, respectively.

2.3.3 Rosenberg Self-Esteem (RSE) Scale

Self-esteem was measured by using the Rosenberg Self-Esteem scale (RSE). The 10-item scale was developed by Rosenberg (1965). A meta-analysis performed by Huang and Dong (2012) has provided good support for the scale's factor structure and other psychometric qualities. Though the original RSE scale is answered on a 4-point scale ranging from Strongly agree (0) to Strongly disagree (3), we opted to use a 5-point Likert scale ranging from Strongly disagree (1) to Strongly agree (5). (e.g., "I take a positive attitude toward myself."), taking the same considerations as described above into account. Higher scores on the RSE scale indicate higher levels of self-esteem. Cronbach's alpha of the RSE scale was measured to .92 in the present analysis. The full questionnaire used is found in Appendix D.

2.3.4 Contingencies of Self-Worth Scale (COSW)

The "Approval From Others" subscale of the "Contingencies of Self-Worth scale" was used to measure in which degree the participants believe their self-worth is contingent on approval from others. The full scale was developed by Crocker et al. (2003) and contains 35 items distributed equally into the seven domains: "Gods' love", "Family support", "Competition", "Appearance", "Academic performance", "Approval from others" and "Virtue". Although the original scale uses a 7-point Likert scale, we have chosen to use a 5-point Likert scale ranging from (1) "Strongly disagree" to (5) "Strongly agree" in the present data collection, considering the same points as explained above. High scores on each subscale indicate that participants' self-worth is contingent on that domain (Bentea, 2016). The scale has been demonstrated to have both good

reliability and validity (Crocker et al., 2003). Cronbach's alpha for the "approval from others" contingency of self-worth was measured to .81 in our analysis. For the subscale used in this research, see Appendix E.

2.3.5 Bergen Social Media Addiction Scale (BSMAS)

The 6-item Bergen Social Media Addiction Scale (BSMAS) was used to measure the participants' relationship to, and use of, social media. The scale is an adaptation of the Bergen Facebook Addiction Scale (BFAS; Andreassen et al., 2012). The items are based on the six components of the addiction model (Griffiths, 2005), and are answered on a 5-point likert scale anchored from Very rarely (1) to Very often (5) (e.g., "How often during the last year have you used social media to forget about personal problems?"). Higher scores indicate higher levels of social media usage. The BSMAS has been demonstrated to have good convergent and discriminative validity (Andreassen et al., 2015). Cronbach's alpha of the BSMAS was measured to .86 in our study. For the BSMAS-questionnaire in its entirety, see Appendix F.

2.3.6 Canadian Problem Gambling Index (CPGI)

The Canadian Problem Gambling Index (CPGI) was used to measure gambling addiction. This 9-item scale was developed by Ferris and Wynne (2001). The questionnaire was answered using a 4-point scale ranging from (1) Never to (4) Almost always, (e.g., "Thinking about the last 12 months, have you bet more than you could afford to lose?"). High scores on the CPGI suggest a problematic relationship with gambling. The CPGI reliability as well as various types of validity has shown to be very good (Ferris & Wynne, 2001). We measured Cronbach's alpha of the CPGI to be .91. The full questionnaire used is found in Appendix G.

2.3.7 Game Addiction Scale for Adolescents (GASA)

The Game Addiction Scale for Adolescents (GASA) was used to measure gaming addiction. This 7-item scale was developed by Lemmens et al., (2009). The items are based on the seven DSM-5 criteria for pathological gambling addiction (i.e., tolerance, mood modification, salience, relapse, withdrawal, conflict, and problems; Lemmens et al., 2009). The questionnaire is answered using a 5-point Likert scale, ranging from (1) Never to (5) Very often, (e.g., "How often during the last six months did you play games to forget about real life?"). The scale has shown high scores on reliability, as well as good concurrent validity, as GASA correlated with measures like time spent gaming, loneliness etc. that have previously shown to be related to game addiction (Lemmens et al., 2009). Higher scores on the GASA scale could indicate gaming problems (Lemmens et al., 2009). We measured Cronbach's alpha for the GASA to be .87. See Appendix H for the full GASA-questionnaire.

2.3.8 Narcissistic Personality Inventory (NPI-16)

The 16-item Narcissistic Personality Inventory (NPI-16) was used to measure narcissistic personality traits. Each item contains a forced choice between two statements, where one indicates narcissistic traits, and the other doesn't (e.g., "I am an extraordinary person" vs. "I am much like everybody else"). The responses are scored either 0 (non-narcissistic response) or 1 (narcissistic response), meaning the total score ranged from 0 - 16, whereas a higher score indicates higher levels of narcissistic traits in the respondent. NPI-16 in its entirety is seen in Appendix I.

The NPI-16 was developed by Ames et al. (2006), with items drawn from the 40-item Narcissistic Personality Inventory (NPI-40; Raskin & Terry, 1988) in order to create a shorter, more practical measure of narcissism. The NPI-16 scale has been shown to have notable validity (Ames, et al., 2006). In our measures, Cronbach's alpha was found to be .74.

2.3.9 Attachment

To measure adult attachment style, The Relationships Questionnaire (RQ; Bartholomew & Horowitz, 1991) was chosen due to its rather short length. The participants are presented with four descriptions of different attachment styles and are asked to mark the description that they perceive to be most suitable to them. On the next four items, participants are asked to rate each of the four attachment styles according to how much they identify with them, on a 5-point Likert scale. Though the last four items in the original version of the questionnaire are answered on a 7-point scale, we have opted to use a 5-point Likert scale consistent with several of the other selected measures. This decision was made in order to avoid potential confusion among participants, considering the total length of the questionnaire and several varying answering scales in the original versions of the questionnaires used. Response options in the present data collection ranged from Strongly disagree (1) to Strongly agree (5). Higher scores on each individual attachment style-related item indicates a higher inclination towards that specific style. Though we do not intend to use the first, forced-choice categorical item presented prior to the Likert rating scale items in our analyses, we have opted to include the RQ in its complete form. This as the first item is argued to serve as a counterbalancing effect for reducing order effects (Ponizovsky et al., 2013, p. 168). The Relationships Questionnaire is seen in full in Appendix J.

2.3.10 Basic Psychological Need Satisfaction: Relatedness Need Satisfaction

To assess satisfaction of the basic psychological need for relatedness, we used the relatedness subscale of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS; Chen et al., 2015), which consists of 8-items measuring relatedness need satisfaction and frustration. The BPNSFS was based on SDT proposed by Deci and Ryan (2000). Items were rated on a 5-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Examples of the questions are “I feel that people I care about, also care about me” and “I feel excluded from the group I want to belong to (reversed)”. While the

original version of the scale measures both relatedness need satisfaction and frustration, we have opted to reverse all four items measuring need frustration in order to get a combined variable measuring relatedness need satisfaction. Higher scores indicate higher levels of relatedness need satisfaction. Cronbach's alpha of relatedness was measured to .88 in our analysis. See Appendix K for all the 8 items in full.

2.4 Analyses

Descriptive statistics (i.e., means, standard deviations and Cronbach's alphas) were calculated for the ENFA. In order to identify the best items to include in the final version of the ENFA, we conducted a second-order Confirmatory Factor Analysis (CFA) using half of the sample ($n = 191$), which was randomly selected. The second-order factor comprised excessive need for approval, whereas each of the six first-order factors ("Salience", "Mood modification", "Tolerance", "Withdrawal", "Conflict" and "Relapse") were reflected by five items each. Using statistics from this confirmatory factor analysis, the items with the highest loading on each of the six factors (i.e., the item with the highest factor loading on each of the six dimensions in question) were considered the best fitting items and were thus retained for the final version of the ENFA scale, namely the ENFA-6. After this extraction, the final ENFA-6 consisted of six items, with each component of behavioral addiction represented by the best suitable item according to the second-order CFA. Further, the ENFA-6 was tested in a first order confirmatory factor analysis on the other half of the sample ($n = 190$).

The CFA models were then run by using AMOS, version 21.0. The RMSEA, the CFI and the TLI were used as fit indexes. As a rule of thumb, for a model with acceptable fit to the data, the three indexes should be $<.08$, $>.90$, and $>.90$, respectively, whereas the three corresponding values for a good fit would be $<.06$, $>.95$, and $.95$, respectively (Hu and Bentler, 1999).

Using the extracted items, we further conducted two correlation analyses. The first was performed in order to investigate the validity of the ENFA-6, using the measures of gambling- and gaming addiction, narcissism, attachment style, relatedness, self-esteem, contingency on approval of self-worth and problematic social media usage as validity measures.

The second correlation analysis was performed in order to investigate the test-retest reliability of the ENFA-6, using scores by the same subject pool provided four weeks after the initial data collection.

3. Results

Table 2

Descriptive Statistics for the Excessive Need for Approval (ENFA) scale (N = 381)

Item	M	SD	Skewness	Kurtosis	α
ENFA-30	69.16	21.97	,36	-,41	.76
ENFA-6	12,44	4,87	,58	-,28	.90
15. My behavior is greatly affected by my need for approval	2,22	1,01	,64	-,40	
23. I tend to crave approval if a lot of time goes by without getting it	2,18	1,08	,56	-,85	
26. I often seek approval to avoid feeling down	2,28	1,11	,48	-,85	
31. I've noticed that I need approval on increasingly more areas or personal traits in order to feel good	1,91	,91	,93	,40	
33. I've tried to replace my focus on approval with something else, but in the long run I can't seem to do it	2,02	,93	,73	-,06	
36. I can't seem to stop seeking approval, even though I suspect it's annoying for others	1,83	,93	1,1	,70	

Note. ENFA-30 = Excessive Need For Approval scale – 30 items, ENFA-6= Excessive Need For Approval scale – 6 items, M = Mean, SD = Standard Deviation, α = Cronbach's alpha

Descriptive statistics (means, standard deviations, skewness, kurtosis and Cronbach's alpha) of the ENFA are presented in Table 3. Looking at the skewness and kurtosis, all items were well within normal ranges (greater than -3 and less than 3, greater than -10 and less than

10, respectively; Griffin & Steinbrecher, 2013). Cronbach's alpha for both the ENFA-30 and the ENFA-6 was high, with ($\alpha = .76$ and $\alpha = .90$), respectively.

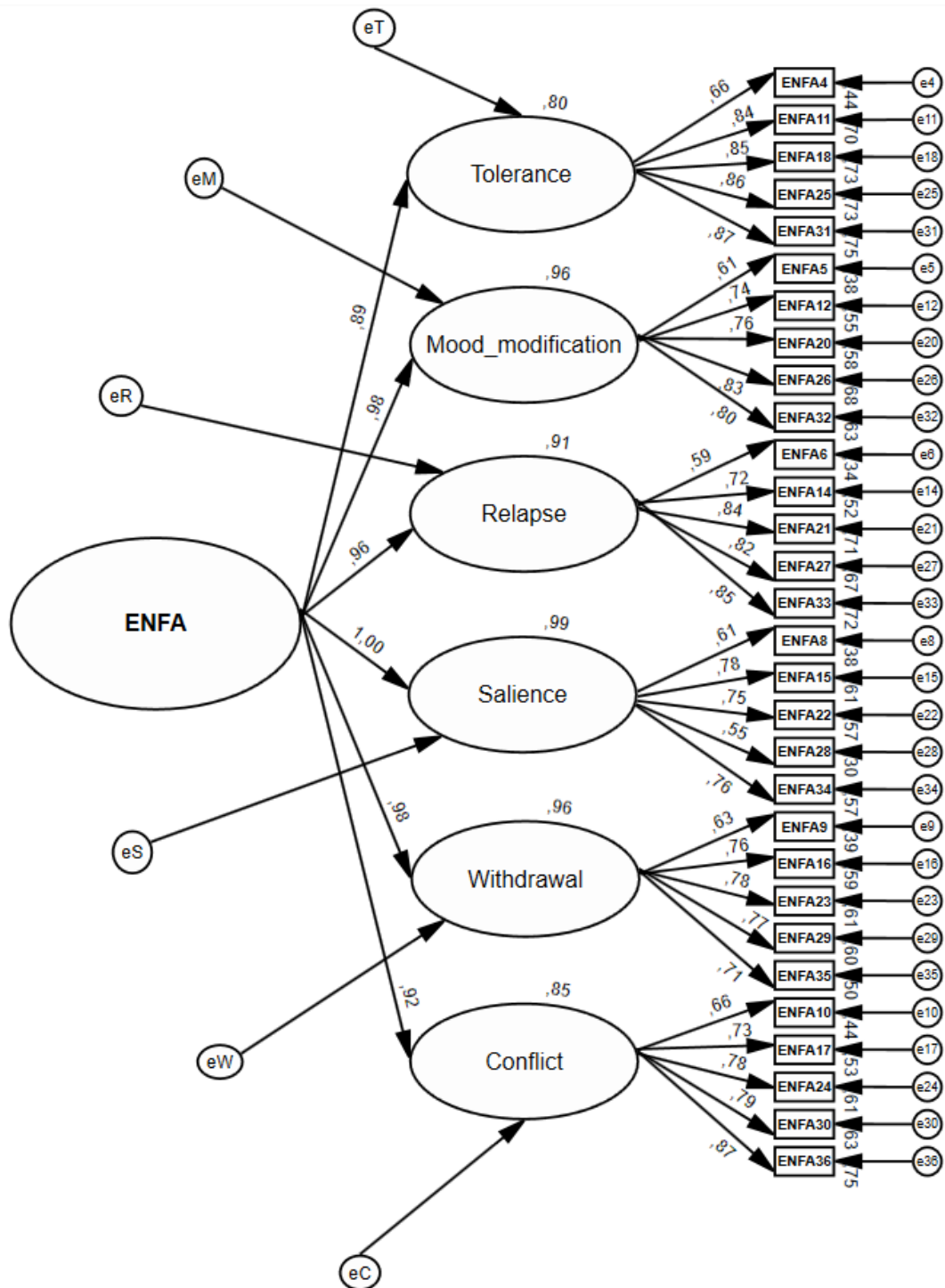
3.1 Scale Construction

The second-order factor structure is shown in Figure 1. The standardized second-order factor loadings ranged from .89 ('tolerance') to 1.0 ('salience'). The highest first order loading for each of the six factors ranged from .78 (Item 23 on 'withdrawal) to .87 (Item 36 on 'conflict'). All loadings were significant ($p < .01$). The second-order model had an somewhat less than acceptable fit with the data, $\chi^2(df = 404, n = 191) = 1073,711$, CFI = .852, RMSEA = .093, (90% CI = .087 - 100), TLI = .841.

Figure 1

Second-order Factor Structure of the Excessive Need For Approval 30 - Items (n= 191)

Showing Standardized Factor Loadings.

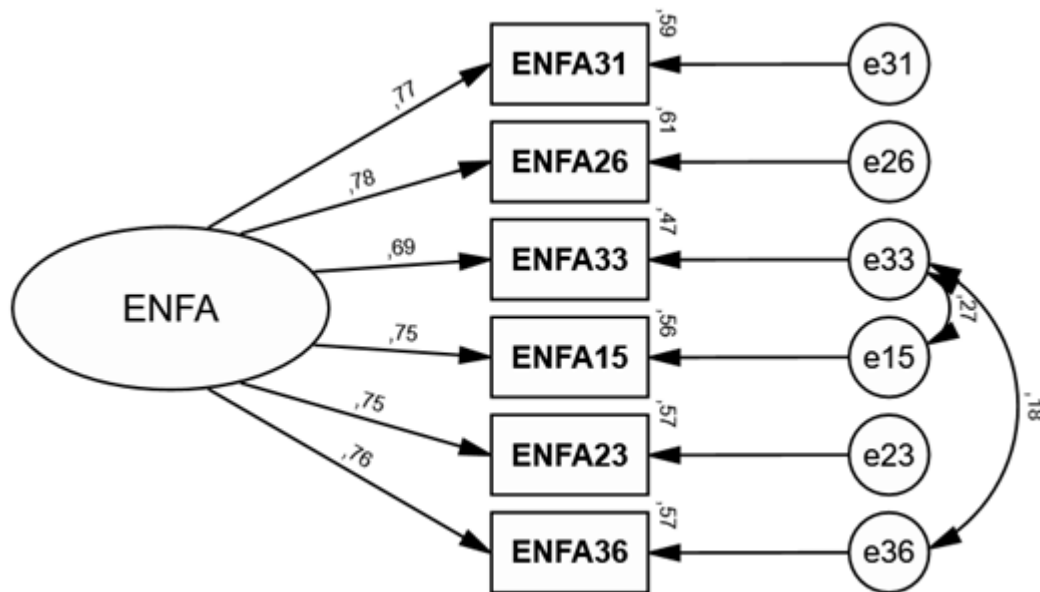


The factor structure of the final version of the ENFA-6 is shown in Figure 2. In line with our first hypothesis, all items showed standardized factor loadings > .60, ranging from

.69 to .78. All loadings were significant ($p < .01$). The model had a good fit with the data, $\chi^2(df = 7, n = 190) = 11,630$, CFI = .992, RMSEA = .059, (90% CI = .000 - .117), TLI = .982.

Figure 2

First-order Factor Structure of the Excessive Need for Approval 6 - Items (n = 190) Showing Standardized Factor Loadings.



3.2 Reliability

Cronbach's alpha of the ENFA-6 was .90. The mean inter-item correlation coefficient was .60. The corrected item-total correlation coefficients for the ENFA-6 consisting of items: ENFA15, ENFA23, ENFA26, ENFA31, ENFA33 and ENFA36 was .71, .70, .74, .74, .74, and .75, respectively.

As for test-retest reliability, the correlation between ENFA-scores in the initial data collection and the retest was significant and largely positive ($r = .818, p < .01$).

3.3 Correlations Between ENFA-6 and Related Constructs

The ENFA-6 and the validity measures show several statistical significant correlations ($p < .01$), as seen in Table 3 below

Table 3

Correlations between Excessive Need For Approval (ENFA-6) and related constructs (n = 381)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
(1) ENFA-6	-														
(2) BSMAS	,515**	-													
(3) GASA	,287**	,311**	-												
(4) RSE	-,431**	-,208**	-,259**	-											
(5) Relatedness	-,325**	-,173**	-,169**	,539**	-										
(6) RQ - SA	-,013	,096	-,059	,219**	,277**	-									
(7) RQ - FA	,181**	,116	,134**	-,334**	-,270**	-,362**	-								
(8) RQ - PA	,302**	,179**	,159**	-,279**	-,223**	-,139**	,213**	-							
(9) RQ - DA	-,165**	-,121*	,037	,081	-,102*	-,233**	,005	-,197**	-						
(10) NPI-16	,047	,107	,101*	,216**	-,013	,060	-,082	,005	,082	-					
(11) CPGI	,078	,022	,232**	-,101*	-,153**	-,011	,065	,049	,053	,088	-				
(12) SW_AFO	,473**	,208**	,078	-,365**	-,158**	-,044	,054	,203**	-,207**	-,017	,046	-			
(13) Age	-,300**	-,384**	-,382**	,283**	,199**	-,200	-,115*	-,153**	,26	-,197**	-,076	-,09	-		
(14) Education	,010	,077	-,035	,115*	-,006	,131*	-,116*	-,101*	,010	,135**	-,081	-,011	-,131	-	
(15) Gender	-,196**	-,235**	,179**	,040	-,029	-,027	-,089	,002	,121*	,100	,152**	-,178**	-,018	,003	-

Note. ENFA-6 = Excessive Need For Approval – 6 items, BSMAS = Bergen Social Media Addiction Scale, GASA = Gaming Addiction Scale for Adolescents, RSE = Rosenberg Self-Esteem, RQ – SA = Relationship Questionnaire Secure Attachment, RQ – FA = Relationship Questionnaire Fearful Attachment, RQ – PA = Relationship Questionnaire Preoccupied Attachment, RQ – DA = Relationship Questionnaire Dismissive Attachment, NPI-16 = Narcissistic Personality Inventory – 16 items, CPGI = Canadian Problem Gambling Index, SW_AFO = Self-Worth Approval From Others

As for demographics, the ENFA-6 scale correlated inversely with both gender ($r = -.196$) and age ($r = -.300$). The correlation between ENFA-6 and level of education was non-significant.

ENFA-6 correlated inversely with self-esteem ($r = -.431$). In addition, ENFA-6 correlated positively with the “approval from others” contingency of self-worth ($r = .473$).

Results showed a positive correlation between the ENFA-6 and social media usage ($r = .515$). ENFA-6 was positively correlated with gaming addiction ($r = .287$), while the correlation between the ENFA-6 and gambling was non-significant.

The correlation between ENFA-6 and narcissism was non-significant. ENFA-6 correlated positively with the preoccupied attachment style and the fearful attachment style ($r = .302$ and $r = .181$), respectively). ENFA-6 and dismissive avoidant attachment style were inversely correlated ($r = -.165$), while the correlation between ENFA-6 and secure attachment style was non-significant. ENFA-6 and relatedness were inversely correlated ($r = -.325$).

4. Discussion

The present study presents and investigates a new instrument for assessing excessive need for approval, and has examined its psychometric properties within a sample of UK residents. ENFA-6 was developed using the components of behavioral addiction-model as a framework, and validated by comparing ENFA-6 scores with scores on several other measures, which are arguably related to need for approval based on existing theory and evidence. As we hypothesized, measures of self-esteem, the subscale of self-worth concerning approval from others on self-worth, preoccupied, fearful and dismissing attachment styles, problematic social media usage, gaming addiction, relatedness, as well as the demographic variables of gender and age, correlated with scores on ENFA-6 and thus supported the construct validity of the ENFA-6. Findings concerning gambling addiction, narcissism and secure attachment style did, however, not support the construct validity of the ENFA-6, as

these correlations were non-significant. All significant correlations were in line with the expected direction. Hence, six of our 10 hypotheses were supported by the presented results, while three were only partially supported, and one was not supported. We argue that support for these hypotheses indicate support for construct validity of the ENFA-6. We will further describe our findings in the following sections.

After conducting two confirmatory factor analyses, the final version of the ENFA-scale consisted of 6 items in total, one corresponding to each component of behavioral addiction (Griffiths, 2005). All factor loadings in the ENFA-6 were above .60 and significant. The model had a good fit with the data. This indicates support for our 1st hypothesis, regarding that our data would support a one-dimensional factor structure for the final version of the ENFA scale which showed high factor loading for all items, as well as fit indexes that showed good fit with the data. It may be noted that the model fit for the initial version of the ENFA scale was somewhat less than acceptable. While these results do not speak directly against our hypothesis, it may be of importance in regards to potential future use of the behavioral addiction framework in research on excessive need for approval.

When classifying correlation strength, we have opted to use Cohen's proposed ranges to classify small, moderate and large correlations - these range from .10-.29, .30-.49 and .50-1.00, respectively (Cohen, 1990). As for reliability, it was demonstrated to be good for the ENFA-6. Test-retest reliability over 4 weeks was satisfactory ($r = .818$). Also, the internal consistency indicated a high level of reliability ($\alpha = .90$), as $\alpha = 0.6-0.7$ indicates an acceptable level of reliability, and $\alpha > 0.8$ is viewed as especially good (Ursachi, Horodnic & Zait, 2015). This supports our 2nd hypothesis regarding good reliability for the ENFA-6, in terms of test-retest reliability and internal consistency.

Furthermore, results regarding the ENFA-6 and related constructs will be elaborated and discussed, as well as compared to our prior mentioned hypotheses.

Starting with our 3rd hypothesis, the ENFA-6 has shown expected intercorrelation with the demographic variables of gender and age. These correlations are in line with the hypothesis, regarding an inverse correlation between ENFA-6 and age, and women scoring higher on ENFA-6 than men. Earlier studies have similarly found that women tend to score higher on measures of need for approval than men (e.g., Ardenghi et al., 2020; Calvete & Cardeñoso, 2005). Need for approval has also previously been shown to decrease with age after adolescence (Brown, 1990; Harter, 1998; Harter et al., 1998).

However, correlations between ENFA-6 and level of education were non-significant in the present dataset. These results partially have our 3rd hypothesis unsupported, regarding a positive correlation between ENFA-6 and level of education. As this hypothesis was not grounded in previous research on the need for approval, we argue that this does not bear significant importance regarding construct validity of the ENFA-6.

Further, our 4th hypothesis regarding an inverse correlation between ENFA-6 and self-esteem was supported. The inverse correlation between ENFA-6 and self-esteem is also arguably in line with previously mentioned assumptions about the relationship between need for approval and self-esteem (Deci & Ryan, 1996; as cited in Ryan & Brown, 2006; Franks and Marolla, 1976). As mentioned in the introduction, external sources of self-esteem commonly depend on approval. One could argue that having a self-esteem that is more contingent on other's approval could make people show more signs of an excessive level of need for approval.

In addition, this correlation was expected, based on the sociometer model. The model posits that your level of self-esteem functions as a "sociometer", which tells you if your need for approval is fulfilled or lacking, and hence potentially making you aware of how approval affects your self-worth. According to the sociometer model, low self-esteem causes awareness of the effect approval has on their self-worth, while high self-esteem does not. Having people

aware (or not) of how approval affects them and their self-worth - could in turn make people respond differently on a questionnaire measuring excessive need for approval. This was the reasoning behind our 4th hypothesis, which was supported by the inverse correlation between ENFA-6 and self-esteem.

Further, ENFA-6 scores correlated positively with scores on the “approval from others” subscale of contingencies of self-worth scale. This supports our 5th hypothesis regarding a positive correlation between ENFA-6 and the contingency of approval on self-worth. We argue that this correlation strengthens convergent validity of the ENFA-6, due to the arguably large theoretical overlap between these constructs. This finding might also indicate support for the previously mentioned research done by Rudolph et al. (2005), which posits that some individuals predominantly base their self-worth on approval. It is arguably plausible that individuals whose self-worth is more affected by approval would report higher levels of excessive need for approval.

The positive correlation between ENFA-6 and the contingency of approval on self-worth is in line with the sociometer model. As mentioned, self-esteem correlated inversely with both the ENFA-6 and the “approval from others” subscale of the COSW. Taken together, these three correlations are all in line with the mentioned and expected intercorrelations as proposed by the sociometer model (Leary et al., 1995). This suggests that this pattern exists not only in regards to need for approval, but also for excessive levels of need for approval. This posits further insights into the role of approval in both self-esteem and self-worth, which may be beneficial in future research regarding this relationship.

While it was well out of the present study’s aim to examine the causal relationships between the variables as proposed by the sociometer model, this may be an interesting cause for future research regarding need for approval, self-esteem, and the contingency of approval on self-worth. In line with the sociometer model, assuming that people who have a fulfilled

need for approval also experience high self-esteem, it is reasonable to believe that these people should not be aware of their actual level of need for approval, as they are not aware that the approval they get are a contributing factor to their high self-esteem. It is thereby also reasonable that they report lower levels of excessive need for approval.

Further, our 6th hypothesis regarding a positive correlation between ENFA-6 and problematic social media usage, was supported by the results. This expectation is backed by relevant theory regarding a relationship between need for approval and social media usage (Jong & Drummond, 2016; Savci et al., 2021) and research (Sciara et al., 2021; Liang, 2017; Sun & Zhang, 2021; Kalaman & Becerilki, 2020). This correlation indicates that a relationship with problematic social media usage is present for excessive need for approval. As previously speculated, one might assume that need for approval may either intensify social media usage, or that problematic social media usage may lead to development of excessive need for approval (e.g. due to more focus on positive feedback from others, more focus on how one is perceived by others, and more focus on the positive feedback that others may receive on social media). While the question of causality between these constructs is outside the scope of the present research, it is arguably an interesting topic to explore further.

As for our 7th hypothesis, it was only partially supported by a positive correlation between gaming addiction and the ENFA-6, while no correlation with gambling was found. Seemingly, people who are more inclined to pathological gaming tend to have more excessive levels of need for approval. A possible explanation for this correlation could be found by looking at the present measures of gaming addiction, excessive need for approval and self-esteem relative to each other. Evidence mentioned earlier suggests that gaming is inversely associated with self-esteem. Hence, subjects with low-self-esteem score higher on excessive need for approval, and are also more inclined to pathological gaming. This makes low self-esteem a possible explanation for the positive correlation between ENFA-6 and

gaming. These intercorrelations are in line with relevant evidence regarding these constructs. One could also speculate whether some pathological gamer's engagement in gaming behavior could be socially motivated. However, the present study did not opt to assess such a causal relationship.

Regarding gambling, no correlation with the ENFA-6 scale was found. In addition, there was only a small correlation between gambling and self-esteem, meaning that our results were not entirely in line with existing literature about the relationship between gambling addiction and self-esteem. The lack of a positive correlation between gambling and ENFA-6 makes our 7th hypothesis regarding a moderate positive relationship between ENFA-6 scores and gambling addiction, only partially supported.

The correlation between ENFA-6 and narcissism was non-significant in the present sample, thus disconfirming our 8th hypothesis regarding an inverse correlation between ENFA-6 and narcissism. The basis for this hypothesis was an inverse relationship between narcissism and self-esteem, as self-esteem levels possibly could be a common, explaining factor for a correlation between narcissism and ENFA-6 (similarly to the relationship between self-esteem, gaming addiction and ENFA-6, discussed above). As discussed earlier, this relationship between narcissism and self-esteem has previously been shown to be rather unstable at a general level. A positive relationship between narcissism and ENFA-6 was expected on the background of evidence suggesting that self-esteem in people who score high on narcissistic personality traits is fragile and dependent on external feedback (i.e., forms of social approval) (Montebarocci et al., 2004). Results presented by Zeigler-Hill, et al. (2008) further suggested that people with certain narcissistic tendencies seek approval frequently in order to confirm or improve their self-esteem, a tendency that may be adverse for their self-esteem when their need for approval is not fulfilled. However, as evident in our dataset, narcissism had a moderate positive correlation with self-esteem. This demonstrates that

participants scoring higher on narcissism in our sample also report higher levels of self-esteem. If narcissism and need for approval does not have low self-esteem as a common factor causing a positive correlation, one could speculate if people with narcissistic traits could have an excessive need for approval regardless of their self-esteem level, and that the narcissistic traits are purely based on a more excessive need for approval (i.e., more excessive than the general population). This would be an interesting perspective to explore in further research.

The unexpected relationship between narcissism and self-esteem may also be explained by an initial fault on our part to consider a possible two-dimensional nature of the concept of narcissism. This distinction was first presented by Wink (1991), and further supported by results from Rohmann et al. (2012) which demonstrated a clear divergence between grandiose and vulnerable narcissism. In their study, narcissistic personality traits showed a positive relationship with self-esteem and an independent self-construal (i.e., a dominant tendency for one's personal attributes, abilities, beliefs and characteristics to define the self; Cross et al., 2003), whereas the revised form of the Narcissistic Inventory (NI; Deneke and Hilgenstock, 1989; as cited in Rohmann et al. 2012), namely NI-R (Neumann & Bierhoff, 2004; as cited in Rohmann et al., 2012), showed a conversely inverse relationship with self-esteem and a positive relationship with interdependent self-construal (i.e., a dominant tendency for relationships, group memberships and social roles to define the self; Cross et al., 2003). Whereas grandiose narcissism is believed to represent the social-personality conceptualization of narcissism and involve high self-esteem, an independent self-construal, and an approach-orientation towards other people, vulnerable narcissism is believed to more closely resemble the clinical conceptualization and involve more self-doubt, an interdependent self-construal, and attachment anxiety (Rohmann et al., 2012), along with an overreliance on others feedback (Neave et al., 2020). In regards to the relationship between

narcissism and self-esteem, it has been previously shown that vulnerable narcissism is indeed associated with lower levels of self-esteem (Miller et al., 2011) and an overreliance on others in order to regulate that self-esteem (Zeigler-Hill et al., 2008).

In light of this distinction, the operationalization of narcissism used in the current study may very well not have been optimal for the intended purpose. Future research examining the relationship between need for approval and narcissism might benefit from using a potentially more suitable measure, e.g., the NI-R. As for the earlier mentioned unstable relationship between narcissism and self-esteem, it may be speculated whether such a conceptualized distinction could have provided fruitful insights into the matter.

In our analysis on the ENFA-6 and attachment styles, three out of four relationship questionnaire subscales showed significant correlation with ENFA-6 in the expected direction. This only partially supports our 9th hypothesis regarding a stronger positive correlation between ENFA-6 and the preoccupied attachment style, a moderate positive correlation between ENFA-6 and the fearful attachment style, and an inverse correlation between the secure and dismissing attachment styles. The largest correlation was demonstrated for the preoccupied attachment style. This was expected due to this attachment style being characterized by a negative model of self along with a positive model of others - indicating an approach-orientation towards others, and a stronger dependence on approval for self-worth (Allison & Bartholomew, 2008).

ENFA-6 also showed a significant positive correlation with the fearful attachment style. As we hypothesized, while the correlation was positive, it was smaller than that of the preoccupied attachment style. Though people dominantly characterized by a fearful attachment style tend to depend on others, the negative model of others reflects a strong fear of rejection and avoidance of intimacy (Allison & Bartholomew, 2008). It may be speculated that this in turn somewhat reduces approval seeking behavior and related mental activity.

An inverse correlation between ENFA-6 and the dismissive attachment style was expected due to the attachment style being characterized by a positive model of self along with a negative model of others. As people with a dominant dismissive attachment style tend to be overly self-reliant and downplay the importance of intimate relationships (Allison & Bartholomew, 2008), less dependence on approval is likely among these people. The relationship between ENFA-6 scores and the dismissive attachment style was found to be significant and in the expected direction in our sample.

As the secure attachment style is characterized by both a positive model of self and of others, involving a stronger sense of self-esteem and contentment with close relationships (Allison & Bartholomew, 2008), an inverse relationship with ENFA-6 was expected. This correlation was non-significant in the present sample, which partially has our 9th hypothesis unsupported. A lack of an expected relationship between these variables somewhat contradicts our 9th hypothesis, while intercorrelations between ENFA-6 and all other attachment styles support our 9th hypothesis, regarding a positive correlation between ENFA-6 and the preoccupied and fearful attachment style, and a negative correlation between ENFA-6 and the secure and dismissing attachment style. These novel insights into excessive levels of need for approval in regards to adult attachment might be found useful in future research concerned with the role of need for approval in attachment style.

Further, ENFA-6 scores correlated inversely with scores on relatedness need satisfaction. This supports our 10th hypothesis regarding an inverse relationship between ENFA-6 and relatedness need satisfaction. As we mentioned earlier, it may be assumed that excessive need for approval can be developed as a means of satisfying the basic psychological need for relatedness. Assuming this, our results are in line with Deci and Ryan's (2000, p. 249) account of "need substitutes" and "compensatory motives". As discussed in the introduction, one might speculate whether people who do not feel accepted and valued by

other people might develop an excessive need for approval as a response to frustration of the need for relatedness.

4.1 Limitations

Our study has some limitations. These include possible researcher bias, choice of validity measures, perspective used in the making of the ENFA scale (approach-motivated and the use of the addiction framework), choice of data collection- and data analysis method, adaptation of several Likert-scales, as well as the sample's representativeness and the generalizability of the findings. Hence, ENFA-6 calls for further evaluation by future studies.

There is a probability that results have been influenced by common method bias, as results could have been affected by measurement of different constructs using the same method in the present study (i.e., self-report questionnaires; Podsakoff, MacKenzie & Podsakoff, 2012). Moreover, it may be thought that our lack of experience in research work may have led us to be less attentive to avoid “researcher degrees of freedom” (i.e., choices made by researchers in study design, data collection, data analyses and reporting, that may produce inflated effects and increased chances of finding false positive results; Wicherts et al., 2016).

As for the validity measures used, existing, empirically supported measures of need for approval, could have been included in the data collection (e.g., Rudolph et al., 2005) to ensure further validity. Using an additional measure with greater theoretical overlap could have been more optimal for ensuring convergent validity. We do, however, argue that sufficient convergent validity was provided by measuring the contingency of approval from others on self-worth, where the correlation was shown to be satisfactory. We opted to include a measure of the contingency of approval from others on self-worth in order to potentially strengthen construct validity, if our results were to be in line with the pattern posited by the sociometer model (Leary et al., 1995). As for construct validity, we argue that the existing

validity measures have ensured a sufficient degree of construct validity when considering the novelty of a measure of excessive need for approval. However, further research on excessive need for approval may also benefit from using different validity measures.

In the present study, we have aimed at developing a measure specifically focused on excessive levels of need for approval. However, in order to examine construct validity, we have based our assumptions on literature that describes relationships between certain constructs and measures of common levels of need for approval (that are not developed using a behavioral addiction framework). As mentioned in the introduction, we believe that what distinguishes common levels of need for approval from excessive levels is that excessive levels of need for approval may never be perceived as fully satisfied, while common levels may be satisfied by receiving sufficient amounts of approval. It may be speculated whether one should expect different correlations between excessive, rather than common, levels of need for approval, and whether other related constructs could have been measured in order to ensure construct validity of the ENFA-6. However, considering that excessive need for approval is a novel construct in the research context, we haven't found a sufficient amount of scientific literature describing this construct. Future research regarding this construct would arguably benefit from any existing research specifically focused on excessive need for approval.

The final version of the ENFA-6 was constructed by selecting the best suitable item for each component of behavioral addiction, based on results from a second-order confirmatory factor analysis. While this method ensures representation of each component considered important to the general construct of behavioral addiction, it is possible that different methods could have produced a more suitable selection for a measurement of excessive need for approval. Furthermore, using other frameworks in development would

likely have produced a measure consisting of highly differing items from those presented in the ENFA-6.

In regards to the two-dimensionality of need for approval (Rudolph, 2021; Rudolph & Bohn, 2014; Rudolph et al., 2005), we were only able to measure approach-motivated need for approval in the present study. Considering that addiction seemingly involves seeking out some desirable stimuli, rather than avoiding undesirable stimuli, a non-addiction oriented framework would arguably have been optimal for measuring avoidance-motivated need for approval (i.e., avoiding receiving negative evaluations from others). Hence, by using behavioral addiction as a framework in the development of the ENFA-6, we have limited our research to focus only on approach-motivated need for approval. While we deemed it as appropriate to only measure approach-motivated need for approval in the present study, avoidance-motivated need for approval is arguably an important aspect of general need for approval. While exploring alternative approaches is outside the scope of the present research, valuable insights may be gained from using different approaches to develop measures of excessive need for approval. However, one could also speculate that approach-motivated behavior and mental activity that is related to the need for approval may also in part be grounded in a motivation to avoid disapproval. If one tends to seek out positive reinforcement from one's social environment, some individual's motivation may do so as a counteracting effect to potential negative judgements from the same people. This reasoning may arguably be in line with findings regarding two-dimensionality of need for approval (Rudolph et al., 2005) as approach- and avoidance-motivated need for approval showed a moderate correlation, suggesting that some individuals possess both types of need for approval, while some do not. Considering this, further research on the distinguishment between approach- and avoidance-motivated is arguably called for.

While using services such as Prolific is highly convenient due to availability of participants, fast response time, and participants having experience with completing questionnaires, this method carries several limitations to the overall quality of the data collected. As known, participants recruited through Prolific are paid workers who receive hourly pay rates. It might be assumed that the act of completing questionnaires might be experienced as routine work for some of the participants in Prolific, especially when performed over time. Hence, participants recruited through such services might not give the answers the same amount of thought as when compared to participants recruited using other methods. However, in light of the novelty of the present research, we argue that our results provide an indicator needed in order for further research to explore the subject of excessive need for approval more extensively.

The decision to consistently use a 5-point Likert scale through the research might be a limitation as well. Even if our intentions were to avoid potential confusion among participants, there is no way of knowing if we managed to achieve this. In addition, it is not preferable to make changes to original questionnaires in general, as deviating from the original measures may alter the results. Still, considering we did not make any changes to the items in the measurements, we think that potential differences in findings compared to those that could have been if we had opted to use the original measures are likely to be small.

Our sample was constricted to adults above the age of 18. Due to limitations on the survey platform used for data collection, as well as ethical considerations, we were not able to include younger participants at the present time. However, as both earlier and present evidence has demonstrated, there seems to exist an inverse relationship between age and need for approval. Further insights into this relationship may be gained from examining excessive need for approval among those younger than 18 years.

.Considering representativeness, one could argue that the sample and results are representative for the UK population above 18 years. Meanwhile, since there were no participants under the age of 18, neither from other countries besides the UK, this may be argued to be a limitation in regards to generalizability. There is no current way of knowing whether our results are generalizable across cultures and age groups. We encourage future research on the topic of excessive need for approval to include samples with differing characteristics from the sample used in the present study.

4.2 Suggestions for Future Research

In addition to the implications mentioned in the discussion, some additional suggestions for future research may be highlighted in the context of the present research.

As mentioned, “Need substitutes” and “compensatory motives” may be associated with pursuing extrinsic aspirations and gaining contingent approval (Deci & Ryan, 2000, p. 249). Considering that extrinsic aspirations are further associated with negative mental health consequences (Deci & Ryan, 2000, p. 250), valuable insights may be gained from further research on the role of excessive need for approval in regards to satisfaction of basic psychological needs (primarily the need for relatedness), as well as the nature of extrinsic aspirations that may result from an excessive need for approval.

As for problematic social media usage, present results strongly suggest a positive relationship between excessive need for approval and problematic social media usage. Our results suggest that the relationship between social media usage and need for approval is not limited to common levels of need for approval, but is also present for excessive levels of need for approval, specifically. As social media usage has continued to increase rapidly through the last decade (Dean, 2021), research concerned with the motivation behind social media usage may become significantly more impactful in the following years. We believe that a demonstrated relationship between excessive need for approval and problematic social media

usage may contribute to important insights in regards to this topic. Future research might benefit from examining the relationship between excessive need for approval and differing kinds of social media usage, e.g., active versus passive usage or approval-related behavior on social media (i.e., posting “selfies”, leaving “likes” on posts, commenting, deleting posts due to a lack of response, etc.).

While the need for approval has been examined extensively during the last decades, there is no widely used measure of excessive levels of this need at the present time. The aim of the present study was to contribute to further interest in this subject by proposing the ENFA-6 as a measure of excessive need for approval, which is based on components of general behavioral addiction (Griffiths, 2005). Examining excessive need for approval may contribute to valuable insight into how excessive levels of this need differ from common levels, and further into potential negative consequences of excessive need for approval on individuals' personal relationships, aspirations, mental health, and/or general well-being. Although our aim was not to pathologize the subject of excessive need for approval, we argue that a behavioral addiction framework might be somewhat useful in the process of developing a measurement of this construct. However, varying frameworks, sample characteristics, and research methods could likely promote further understanding of this construct. We hope that future research makes use of presented theory and results in the present research for this purpose.

5. Conclusions

The present research presents a measure for excessive need for approval using a behavioral addiction framework. The ENFA-6 has been demonstrated to show promising construct and convergent validity, as well as satisfactory reliability in terms of internal consistency and repeated measures. This may encourage future research on the subject of excessive need for approval and its various potential detrimental effects. Although we do not

intend to claim that such elevation needs to be pathologized, we do expect that this framework might be useful in order to investigate the matter further.

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Appendix A

Letter of consent

This is an invitation to participate in a survey in which we wish to examine thoughts, attitudes and experiences related to seeking approval, gambling, your relationship with yourself and personal traits. Results from this study will be published in a master's thesis and in a paper in a research journal. In this letter of consent, we will give you information about the research project and what participation involves for you.

What does participation involve?

Participation involves you completing the survey. This will take about 25 minutes.

Possible advantages and disadvantages

Possible advantages: Some may find participation interesting, and a good learning experience. By participating, you will also get to contribute to research.

Possible disadvantages: Some people may experience negative emotions if they have a problematic relationship with some of the topics we ask about. Completing the survey will also take some time, about 25 minutes.

Voluntary participation

Participation is voluntary. You can withdraw at any time, both before and during the survey, without stating any reason. Choosing to not participate or withdrawing at a later point will not have any negative consequences for you.

What happens to information about you?

We will only use information about you for the purposes stated in this letter. Information about you will be treated confidentially and in accordance with privacy regulations. The project is scheduled to end 19.05.2022.

As long as you can be identified in the dataset, you have the right to:

- gain insight in what personal information is registered about you, and be given a copy of this information
- having personal information about you corrected
- having personal information about you deleted, and
- submit a complaint to the Norwegian Data Protection Authority regarding the treatment of your personal information.

Approvals

We will process your personal data based on your consent. The University of Bergen, NSD – The Norwegian Centre for Research Data AS has evaluated the processing of personal data in this project to be in accordance with data protection legislation.

Contact information

If you have questions related to the project, or wish to take advantage of your rights, you may contact associate master's students Tina Marie Andersen (tina.andersen@uib.no) or Arina Håland (arina.haland@student.uib.no). You can also contact one of these if you were to experience negative emotions that you feel a need to talk about due to your participation in this project. You may also contact our Data Protection Officer Janecke Helene Veim (Janecke.Veim@uib.no).

Appendix B

The Excessive Need For Approval (ENFA-30) Scale

The objective of this questionnaire is to measure your need for approval. By “approval”, we refer to positive appraisal you receive from others. Such appraisal can be related to either your behavior in a given situation, or to your personal traits (such as your personality, way of being or moral values). Appraisal can be in the form of compliments, positive remarks, or praise, among others.

A total of 30 statements related to need for approval are presented below. We kindly ask you to read each statement and indicate on a scale from 1 (strongly disagree) to 5 (strongly agree) to which degree you agree with each statement.

Gender

“Woman” / “Man” / “Other” / “Prefer not to say”

Age

[Exact age box]

Highest completed education

“None” / “Primary school” / “High school” / “Vocational school” / “Bachelor’s degree” / “Master’s degree” / “PhD”

Tolerance

1. The approval I receive in a given context needs to become increasingly more prominent over time for me to feel satisfied

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree

- Strongly Agree
2. I've noticed that I seek approval more and more often
- Strongly Disagree
 - Disagree
 - Neither disagree nor agree
 - Agree
 - Strongly Agree
3. I've noticed that I need approval from increasingly more people in order to feel good
- Strongly Disagree
 - Disagree
 - Neither disagree nor agree
 - Agree
 - Strongly Agree
4. It takes more approval in order for me to feel satisfied now than it did before
- Strongly Disagree
 - Disagree
 - Neither disagree nor agree
 - Agree
 - Strongly Agree
5. I've noticed that I need approval on increasingly more areas or personal traits in order to feel good
- Strongly Disagree
 - Disagree
 - Neither disagree nor agree
 - Agree

Strongly Agree

Mood modification

6. I experience a rush of positive emotions whenever I receive approval from others

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

7. Whenever I have a bad day, I experience a stronger need for approval

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

8. I often seek approval to forget about my problems

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

9. I often seek approval to avoid feeling down

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

10. I seek approval to feel good and satisfied with myself

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

Relapse

11. I have made attempts to reduce my need for approval, without succeeding with this

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

12. I have tried to convince myself that I am a good and capable person, but do not manage to believe this without receiving approval from others

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

13. I have the tendency to go back to seeking approval, even though I know I shouldn't

Strongly Disagree

Disagree

Neither disagree nor agree

- Agree
- Strongly Agree

14. I can't seem to reduce my focus on getting approval, even though I am tired of having this focus

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

15. I've tried to replace my focus on approval with something else, but in the long run I can't seem to do it

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

Salience

16. It's important to me that others give me approval for the things I do well, or things about myself that I'm pleased with

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

17. My behavior is greatly affected by my need for approval

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

18. I think a lot about what I can do to receive approval from other

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

19. If I do something great, I talk about it to others in order to receive approval

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

20. Approval has a strong influence in my mood

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

Withdrawal symptoms

21. I feel uneasy if I don't get approval from others

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

22. Lack of approval from others has a strong influence on my feelings

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

23. **I tend to crave approval if a lot of time goes by without getting it**

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

24. I tend to feel like a failure in times when I receive little to no approval

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

25. I often feel frustrated with not having enough opportunities to receive approval

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

Conflict

26. I have given up on numerous projects or tasks due to not receiving enough approval on these areas

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

27. I have neglected certain areas of my life that are important for me (e.g., school, work, hobbies) due to my approval seeking

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

28. People have gotten annoyed with me for having a high need for approval

- Strongly Disagree
- Disagree
- Neither disagree nor agree

- Agree
- Strongly Agree

29. My need for approval affects my relations negatively (e.g. with my family, spouse, colleagues or my boss).

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

30. I can't seem to stop seeking approval, even though I suspect it's annoying for others

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

Do you actively use any social media? (E.g. Facebook, Instagram, Snapchat, Tiktok or Twitter)

“Yes” / “No”

Appendix C

The Excessive Need For Approval (ENFA-6) Scale

The objective of this questionnaire is to measure your need for approval. By “approval”, we refer to positive appraisal you receive from others. Such appraisal can be related to either your behavior in a given situation, or to your personal traits (such as your personality, way of being or moral values). Appraisal can be in the form of compliments, positive remarks, or praise, among others.

A total of 6 statements related to need for approval are presented below. We kindly ask you to read each statement and indicate on a scale from 1 (strongly disagree) to 5 (strongly agree) to which degree you agree with each statement.

1. My behavior is greatly affected by my need for approval

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

2. **I tend to crave approval if a lot of time goes by without getting it**

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

3. I often seek approval to avoid feeling down

- Strongly Disagree
- Disagree

Neither disagree nor agree

Agree

Strongly Agree

4. I've noticed that I need approval on increasingly more areas or personal traits in order to feel good

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

5. I've tried to replace my focus on approval with something else, but in the long run I can't seem to do it

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

6. I can't seem to stop seeking approval, even though I suspect it's annoying for others

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

Appendix D**Rosenberg Self-Esteem (RSE) Scale**

Below is a list of statements dealing with your general feelings about yourself. Please respond to each of them by marking your answer using the scale from "Strongly disagree" to "Strongly agree."

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

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

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

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

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

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

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

- Strongly Disagree

- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

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

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

6. I certainly feel useless at times.

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

7. I feel that I'm a person of worth, at least on an equal plane with others.

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

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

- Strongly Disagree
- Disagree

Neither disagree nor agree

Agree

Strongly Agree

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

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

10. I take a positive attitude toward myself.

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

Appendix E

Contingencies of Self-Worth Scale (COSW) – Subscale “Approval from others”

Please respond to each of the following statements by marking your answer using the scale from "Strongly disagree" to "Strongly agree." If you haven't experienced the situation described in a particular statement, please answer how you think you would feel if that situation occurred.

1. I don't care if other people have a negative opinion about me.

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

2. I can't respect myself if others don't respect me.

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

3. I don't care what other people think of me.

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

4. What others think of me has no effect on what I think about myself.

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

5. My self-esteem depends on the opinions others hold of me.

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

Appendix F**Bergen Social Media Addiction Scale (BSMAS)**

Instruction: Below you find some questions about your relationship to and use of social media (Facebook, Twitter, Instagram, and the like). Choose the response alternative for each question that best describes you.

How often during the last year have you..

... spent a lot of time thinking about social media or planned use of social media?

- Very rarely
- Rarely
- Sometimes
- Often
- Very often

... felt an urge to use social media more and more?

- Very rarely
- Rarely
- Sometimes
- Often
- Very often

... used social media to forget about personal problems?

- Very rarely
- Rarely
- Sometimes
- Often
- Very often

... tried to cut down on the use of social media without success?

- Very rarely
- Rarely
- Sometimes
- Often
- Very often

. . . become restless or troubled if you have been prohibited from using social media?

- Very rarely
- Rarely
- Sometimes
- Often
- Very often

. . . used social media so much that it has had a negative impact on your job/studies?

- Very rarely
- Rarely
- Sometimes
- Often
- Very often

Appendix G**Canadian Problem Gambling Index (CPGI)**

Below is a list of statements regarding gambling. Please respond to each of them by marking your answer using the scale from "Never" to "Almost always."

Thinking about the last 12 months...

1. Have you bet more than you could really afford to lose?

- Never
- Sometimes
- Most of the time
- Almost always

2. Still thinking about the last 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement?

- Never
- Sometimes
- Most of the time
- Almost always

3. When you gambled, did you go back another day to try to win back the money you lost?

- Never
- Sometimes
- Most of the time
- Almost always

4. Have you borrowed money or sold anything to get money to gamble?

- Never

Sometimes

Most of the time

Almost always

5. Have you felt that you might have a problem with gambling?

Never

Sometimes

Most of the time

Almost always

6. Has gambling caused you any health problems, including stress or anxiety?

Never

Sometimes

Most of the time

Almost always

7. Have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?

Never

Sometimes

Most of the time

Almost always

8. Has your gambling caused any financial problems for you or your household?

Never

Sometimes

Most of the time

Almost always

9. Have you felt guilty about the way you gamble or what happens when you gamble?

Never

Sometimes

Most of the time

Almost always

Appendix H

Gaming Addiction Scale for Adolescents (GASA)

Below is a list of statements regarding video games. In this survey, gaming is defined as "the action or practice of playing video games". Please respond to each of them by marking your answer using the scale from "Never" to "Very often."

1. How often during the last six months....

Did you think about playing a game all day long?

- Never
- Rarely
- Sometimes
- Often
- Very often

2. Did you spend increasingly amounts of time on games?

- Never
- Rarely
- Sometimes
- Often
- Very often

3. Did you play games to forget about real life?

- Never
- Rarely
- Sometimes
- Often

Very often

4. Have others unsuccessfully tried to reduce your game use?

Never

Rarely

Sometimes

Often

Very often

5. Have you felt bad when you were unable to play?

Never

Rarely

Sometimes

Often

Very often

6. Did you have fights with others (e.g. family, friends) over your time spent on games?

Never

Rarely

Sometimes

Often

Very often

7.

H

ave you neglected other important activities (e.g., school, work, sports) to play games?

- Never
- Rarely
- Sometimes
- Often
- Very often

Appendix I**Narcissistic Personality Inventory – 16 items (NPI-16)**

Read each pair of statements below and mark the one that comes closest to describing your feelings and beliefs about yourself. You may feel that neither statement describes you well, but pick the one that comes closest. **Please complete all pairs.**

1. ___ I really like to be the center of attention
___ It makes me uncomfortable to be the center of attention

2. ___ I am no better or no worse than most people
___ I think I am a special person

3. ___ Everybody likes to hear my stories
___ Sometimes I tell good stories

4. ___ I usually get the respect that I deserve
___ I insist upon getting the respect that is due me

5. ___ I don't mind following orders
___ I like having authority over people

6. ___ I am going to be a great person
___ I hope I am going to be successful

7. ___ People sometimes believe what I tell them
___ I can make anybody believe anything I want them to

8. ___ I expect a great deal from other people
___ I like to do things for other people
9. ___ I like to be the center of attention
___ I prefer to blend in with the crowd
10. ___ I am much like everybody else
___ I am an extraordinary person
11. ___ I always know what I am doing
___ Sometimes I am not sure of what I am doing
12. ___ I don't like it when I find myself manipulating people
___ I find it easy to manipulate people
13. ___ Being an authority doesn't mean that much to me
___ People always seem to recognize my authority
14. ___ I know that I am good because everybody keeps telling me so
___ When people compliment me, I sometimes get embarrassed
15. ___ I try not to be a show off
___ I am apt to show off if I get the chance

16. ___ I am more capable than other people

___ There is a lot that I can learn from other people

Appendix J

Relationship Questionnaire (RQ)

Following are four general relationship styles that people often report. Place a checkmark next to the letter corresponding to the style that best describes you or is closest to the way you are.

____ A. It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.

____ B. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

____ C. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

____ D. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

Now please rate each of the relationship styles above to indicate how well or poorly each description corresponds to your general relationship style.

Style A

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

Style B

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

Style C

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

Style D

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

Appendix K**Relatedness need satisfaction**

Below you find some statements about relatedness. Choose the response alternative for each question that best describes you.

1. I feel that the people I care about also care about me

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

2. I feel connected with people who care for me, and for whom I care

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

3. I feel close and connected with other people who are important to me

- Strongly Disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

4. I experience a warm feeling with the people I spend time with

- Strongly Disagree
- Disagree

Neither disagree nor agree

Agree

Strongly Agree

5. I feel excluded from the group I want to belong to

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

6. I feel that people who are important to me are cold and distant towards me

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

7. I have the impression that people I spend time with dislike me

Strongly Disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

8. I feel the relationships I have are just superficial

Strongly Disagree

Disagree

Neither disagree nor agree

- Agree
- Strongly Agree