

Master Thesis
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MSc Clinical Psychology

**Basic Psychological Need Frustration and GAD Symptoms: A Study into its
Universality**

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Abstract

From the perspective of the self-determination theory (SDT), satisfaction of the three basic psychological needs - autonomy, relatedness and competence – leads to well-being, while the frustration of those needs results in ill-being; and this effect is universal. This study investigates the relationship between satisfaction and frustration of the basic psychological needs and symptoms of generalized anxiety disorder (GAD). Investigating the universality of these relationships, we checked whether the effect of basic needs would interact with cultural orientations in the prediction of symptoms of GAD. Results based on a sample of 357 Turkish participants (13% male, 87% female, mean age 30 years) showed that (1) both higher basic need satisfaction and lower need frustration predicted lower GAD symptoms, and (2) these relationships hold independent of cultural orientations. Clinical and theoretical implications are discussed, as well as possible avenues for further research.

Keywords: self-determination theory, basic psychological needs, basic need satisfaction, basic need frustration, universality of basic needs, generalized anxiety disorder

Generalized anxiety disorder (GAD) is characterized by excessive and uncontrollable worry about a number of events or activities for at least six months, including physical symptoms and significant distress or impairment in social, occupational or other areas of function (American Psychiatric Association, 2013). It is most common anxiety disorder seen in primary care (DeMartini et al., 2019) and its worldwide lifetime prevalence estimates range from 1.8% to 6.9% among adults (Lieb et al. 2005). There are several theoretical models explaining GAD such as cognitive models including Intolerance of Uncertainty Model (Dugas et al., 1998) and Metacognitive Model (Wells, 1995); emotional/experiential models including Emotion Dysregulation Model (Mennin et al., 2005) and Acceptance-Based Model (Roemer & Orsillo, 2002); and an integrated model that is Avoidance Model of Worry, (Borkovec et al., 2004). Present theoretical models offer crucial insight into the nature of GAD and its treatment (e.g., Behar et al., 2009), however the underlying mechanisms, that is, the transdiagnostic processes are still need to be developed (McEvoy & Mahoney, 2013). Self-determination theory (SDT) can provide a way to understand better the underlying factors in GAD. SDT posits three basic psychological needs indicating that these needs are valid for all human beings regardless of their culture (Ryan & Deci, 2017). Campbell et al. (2018) suggested that the frustration of these needs could represent a transdiagnostic risk factor for diverse types of psychopathology. That is, need frustration would be a common risk factor underlying diverse types of psychological problems (Rodriguez-Meirinhos et al., 2020). By investigating the universality of the basic psychological needs and the relationship between GAD and basic need satisfaction/frustration, this study can contribute additional means to transdiagnostic processes in GAD, which can have important clinical implications for successful treatment of this disorder.

Basic Psychological Needs

Self Determination Theory (SDT, Ryan & Deci, 2000, 2017) is a meta theory that details a framework about human motivation and healthy psychological and behavioral functioning. SDT posits satisfaction of three universal psychological needs being related to people's effective performance, psychological health and well-being, while frustration of these needs is seen as detrimental for one's psychological growth

and hence an important transdiagnostic process of diverse forms of psychopathology (Deci & Ryan, 2012; Ryan & Deci, 2000, 2017; Ryan, Deci & Vansteenkiste 2016).

According to Ryan and Deci (2017) every human being has three basic psychological needs, which are fundamental resources or nutrients that must be provided in order to promote meaningful and observable positive effects on psychological growth and health. SDT conceptualizes three basic psychological needs: relatedness, competence and autonomy. Relatedness is described as the feeling of meaningful connection and involvement with others, that is, caring for and being cared of by others (Ryan & Deci, 2017). Secondly, competence is defined as “feeling effective in one’s interactions with the social environment” (Ryan & Deci, 2017, p.86). When individuals are facilitated to express and develop their own capacities and talents with a feeling of efficacy or mastery, their need of competence would be satisfied. Thirdly, autonomy is referred to as acting with a sense of volition and willingness (Ryan & Deci, 2017). Owning one’s own behaviors leads to experiencing self-endorsement and satisfies the need for autonomy.

While each of these needs are described in terms of need fulfillment or *satisfaction*, an important distinction should be made with the experience of need *frustration*, leading to substantial psychosocial harm (e.g., Vansteenkiste & Ryan, 2013). While one can experience a very superficial connection with colleagues, indicating a lack of fulfillment of relatedness, the same individual can be actively excluded or rejected by colleagues, experiencing relatedness need frustration. Moreover, not being able to discover new skills would lead to low satisfaction of competence, making that individual feel low in efficacy. On the other hand, failing in undertakings would lead to competence frustration, of which the consequences would be psychological ill-being. Further, not feeling that one’s decisions reflect what he or she really wants would lower that individual’s autonomy need satisfaction, while feeling pressured to do the decisions of others would result in autonomy need frustration.

Ryan and Deci (2017) argue that need satisfaction is essential for psychological growth and coherence, leading to psychological health and well-being. In contrast, need frustration makes individuals prone to fragmentation and therefore ill-being (Vansteenkiste & Ryan, 2013). Thus, need frustration does not solely represent a lack of satisfaction, but a separate construct. Said differently, low need satisfaction blocks the psychological integrity, but high need frustration can be very

detrimental and even pathogenic. Compared to need satisfaction, need frustration better predicted ill-being outcomes such as negative affect and burnout (Bartholomew et al., 2011; Longo et al., 2016). Neyrinck et al. (2019) showed that the prediction of need frustration is significantly stronger compared to need satisfaction for borderline personality features. De Bruin et al. (2019) also revealed that social anxiety features have stronger relation with need frustration compared to need satisfaction.

Regarding the pathological associations, previous studies show that need frustration is related to greater alcohol abuse (Knee & Neighbors, 2002), eating disorders (Campbell et al., 2018), depression (Costa et al., 2016), burnout (Roche & Haar, 2013) and somatic anxiety (Tindall & Curtis, 2019). It is associated with negative affect and academic maladjustment in adolescents (Vandenkerckhove et al., 2019), and suicidal ideation and behaviour in young adults (Britton et al., 2014). Moreover, need frustration is related to daily fluctuations in binge eating symptoms (Verstuyf et al., 2013) and to self-critical perfectionism that in turn increases binge eating symptoms (Boone et al., 2014).

In addition to other psychological ill-beings, there are also studies showing the relation between basic psychological needs and anxiety. The daily fluctuations in need satisfaction among students, is associated with daily physical symptoms and negative affect such as anxiety and worry (Reis et al., 2000). Quested et al. (2011) showed that higher level of need satisfaction is associated with less cortisol secretion, which is related to anxiety level, among dancers during a dance performance. Furthermore, satisfaction of the needs is shown to be related to less anger and anxiety among teachers (Klassen et al., 2012).

Universality of the basic needs

According to SDT, basic psychological needs are universal inner human conditions for psychological well-being. Therefore, the beneficial effects of need satisfaction and deleterious effects of need frustration should apply to all human beings regardless of age or culture (Ryan & Deci, 2017). This universalistic point of view stands in contrast with cultural relativistic perspectives proposing different cultures, underscoring different goals and values, effecting an individual's well-being in different ways (Markus et al., 1996). For example, social cognitive theorists argue that the need of relatedness is more important for individuals from collectivistic

cultures, while autonomy and self-development would be more crucial for psychological health of people from individualistic cultures (e.g., Cross, Morris, & Gore, 2002). However, SDT perceives relatedness and autonomy as having equal importance for both individualistic and collectivistic cultures (Ryan & Deci, 2017). When autonomy is confused with independence, separateness or freedom from all external influences, it can be equated with individualism, which would result in a claim that the need of autonomy is different across individualistic and collectivistic cultures. However, SDT distinguishes autonomy from these concepts (Ryan & Deci, 2017). According to SDT, independence implies being separate, while autonomy might imply being willingly reliant hence dependent in significant relationships (La Guardia et al., 2000). Thus, when autonomy is understood as congruence between an individual's behaviors and willingness, this need would have same importance for every human being independent of the culture. In a collectivistic culture, when one finds a cultural value important and adheres it in a volitional and autonomous way, the need for autonomy would still be satisfied, in contrast to the one who believes that he or she has to respect others with higher status without internalizing that value.

Studies show that despite of the differences in the cultural practices, the satisfaction of the basic psychological needs predict well-being regardless of the four different cultural practices. These four cultural practices are: horizontal collectivist, vertical collectivist, horizontal individualist and vertical individualist (Triandis & Gelfand, 1998; Chirkov, 2003). In the horizontal collectivist practices, the societal collective is prioritized and individuals are treated as equal and similar, while the vertical collectivist cultures give priority to collective needs with a hierarchical relationship within the group. On the other hand, horizontal individualist practices let individuals pursue their own preferences and beliefs and all individuals are as important and equal, while vertical individualism is the tendency to be distinguished and have a status in addition to achieving more powerful position relative to others. Chirkov et al. (2003) showed that regardless of these four cultural practices, the degree of felt autonomy predicts well-being. Another study by Sheldon et al., (2004) showed that autonomy to be positively related to well-being in both collectivistic and individualistic cultures (see also Rudy et al., 2007). Erturan-Ilker et al. (2018) revealed that the satisfaction of relatedness, autonomy and competence is the predictor of well-being across two different cultures-England and Turkey. In another study across four different countries –Belgium, China, USA and Peru - Chen et al. (2015) found that the

satisfaction of each of the three needs predicts well-being and the frustration of them leads to ill-being. Further to these, the relationship between perceived controlling teaching behaviors and negative affect is shown to be mediated by need frustration among Chinese secondary school students (Liu et al., 2017), which shows that the basic psychological needs have the same importance in collectivistic cultures as well. In short, there is a growing literature showing that the importance of the basic psychological needs, that is, self-determined functioning is not unique to western cultures, it equally predicts well-being in eastern cultures. A feeling of choice and freedom in practicing cultural values and norms is more conducive to well-being than the values themselves.

Present Study

Despite of the growing literature examining the relationship between basic psychological needs and psychopathology, the association between generalized anxiety disorder (GAD) and basic needs is not yet examined. In addition, there is still discussion about the universality of the basic psychological needs (Erturan-Ilker et al., 2018), that is, are the beneficial effects of need satisfaction and deleterious effects of need frustration the same across different cultural orientations? Therefore, in the present study, we predict the following: (*Hypothesis 1a*) both higher basic need satisfaction and lower need frustration are associated with lower scores in GAD symptoms; (*Hypothesis 1b*) need frustration is a stronger predictor in comparison to need satisfaction. Moreover, we expect this association to hold regardless of cultural orientations, that is, we do not expect the relation between need satisfaction/frustration and GAD to interact with both cultural dimensions horizontal-vertical and individualism-collectivism (*Hypothesis 2*).

Method

Participants

Any healthy volunteer older than 18 was able to attend the study. Our sample consisted of a total of 357 Turkish participants, comprising of 306 women and 51 men ($M_{age} = 30.23$, $S = 9.43$, range 18-59 years).

Procedure

Via the digital platform Qualtrics, participants were invited to give their informed consent to fill in our anonymous questionnaire. They were asked to provide demographic information (age and gender) and presented several scales determining (1) satisfaction and frustration of basic psychological needs, (2) presence of features of GAD and (3) their cultural orientation. The data is collected from Turkey; since this is a country that includes both collectivistic and individualistic culture practices (Caffaro et al., 2014), enabling us to have participants from all four different forms of cultural orientations.

Measures

The Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS). Both satisfaction as well as frustration of each of the three psychological needs was measured by the BPNSFS (Chen, Vansteenkiste et al., 2015). On a likert-type scale, ranging from 1 (not true at all) to 5 (completely true), six factors were measured with four items each: autonomy satisfaction (e.g., I feel I have been doing what really interests me), autonomy frustration (e.g., I feel pressured to do too many things), relatedness satisfaction (e.g., I feel that the people I care about also care about me), relatedness frustration (e.g., I feel the relationships I have are just superficial), competence satisfaction (e.g., I feel I can successfully complete difficult tasks) and competence frustration (e.g., I feel insecure about my abilities). The Turkish adaptation of BPNSFS has been shown to have good internal consistency ($\alpha = 0.74-0.88$) and good convergent validity as well (Selvi, 2018). Calculating the mean of twelve satisfaction and twelve frustration items, gave respectively the “need satisfaction” ($\alpha = 0.83$) and “need frustration” subscale ($\alpha = 0.87$). Alpha’s showing the reliabilities in the current study ($\alpha = 0.83-0.87$) are similar to the Turkish adaptation study ($\alpha = 0.74-0.88$), which is done by Selvi (2018).

GAD-7. To assess symptoms of generalized anxiety disorder, GAD-7 scale is used (Spitzer et al., 2006). It is four-point likert-type scale asking the participants the

frequency of being bothered of seven items (e.g., “feeling anxious, nervous or on edge”) varying in severity from 0 (not at all) to 4 (nearly everyday). The Turkish adaptation of the GAD-7 scale is shown to have good convergent validity (e.g., $r = 0.63$) and internal consistency ($\alpha = 0.85$) (Konkan et al., 2013). The score of the scale is calculated by summing up the score of each item. The reliability of GAD-7 scale in this study is ($\alpha = 0.87$).

Beck Anxiety Inventory. Making sure that our results would be less affected by the Turkish translations of the scales, we also used the Beck Anxiety Inventory (BAI) to measure GAD symptoms (Steer & Beck, 1997). BAI consist of 21 items (e.g., “scared”, “unsteady”, “fear of losing control”) on a 0 (not at all bothered) to 4 (severely bothered) scale. The Turkish adaptation of the scale has shown to have high internal consistency ($\alpha = 0.93$), high concurrent validity ($r = 0.45-0.53$) and construct validity ($r = 0.73$) (Ulusoy et al., 1998). The reliability of this inventory in the current study ($\alpha = 0.94$) is congruent with the Turkish adaptation of the scale done by Ulusoy et al. (1998).

Cultural Orientations. To measure cultural orientation, the Turkish version of Triandis and Gelfand’s (1998) *Cultural Orientation Scale* (INDCOL) is used, measuring 4 factors that are horizontal collectivism (e.g., “I feel good when I cooperate with others”, $\alpha = 0.64$), horizontal individualism (e.g., “I’d rather depend on myself than others”, $\alpha = 0.72$), vertical collectivism (e.g., “It is important to me that I respect the decisions made by my groups”, $\alpha = 0.67$), and vertical individualism (e.g., “It is important that I do my job better than others”, $\alpha = 0.77$). Items are rated on a scale ranging from 1 (completely disagree) to 5 (completely agree). The Turkish adaptation of the scale is shown to be reliable ($\alpha = 0.73$) and valid (Wasti & Erdil, 2007).

Results

Preliminary Analyses

First of all we checked for possible effects of background variables gender and age. Independent samples t-test were conducted to determine whether there is a significant difference between genders. The only significant difference between

female and male participants is revealed to be in terms of their vertical individualism (VI) scores ($t(355)=-3.48, p=.001$), such that the VI scores of the male participants ($MD=3.17, SD=0.61$) were significantly higher compared to female participants ($MD=2.84, SD=0.62$). Since the results show that gender is not a significant predictor of anxiety or basic need satisfaction/frustration, we omit it from the further analysis.

Furthermore, age seems to be significantly correlated with BAI ($r=-.17, p<.01$) and GAD-7 ($r=-.21, p<.01$) in addition to basic need satisfaction ($r=.19, p<.01$) and basic need frustration ($r=-.23, p<.01$) such that high age is related to lower need frustration and lower anxiety; while it is related to higher need satisfaction, which is in line with previous literature stating that anxiety decreases by aging (Sheikh et al., 2004). Therefore, age was included as a control variable in all further analysis.

Pearson correlations were run to check the correlations between the studied variables (see Table 1). Basic need satisfaction has a significant negative correlation with the both anxiety scales, while basic need frustration correlated significantly positive with these scales. As depicted in Table 1, need satisfaction and frustration correlate with some of the cultural orientations. This relationship is controlled in further analysis.

Table 1

Bivariate Pearson Correlations (r)

	CAS	BAI	GAD-7	NS	NF	HC	VC	HI	VI
BAI	.94**	1							
GAD-7	.94**	.77**	1						
NS	-.45**	-.39**	-.46**	1					
NF	.59**	.51**	.59**	-.67**	1				
HC	.00	.02	-.02	.21**	-.04	1			
VC	.11*	.14**	.07	.10	.10	.44**	1		
HI	-.03	-.01	-.05	.25**	-.07	.03	-.06	1	
VI	.19**	.17**	.19**	-.12*	.29**	-.01	.10	.19**	1

Note. * $p < .05$; ** $p < .01$;

CAS = Composite Anxiety Score, BAI = Beck Anxiety Inventory, NS = Need Satisfaction, NF = Need Frustration, HC = Horizontal Collectivism, VC = Vertical Collectivism, HI = Horizontal Individualism, VI = Vertical Individualism

The preliminary analyses also revealed that both anxiety scales are highly correlated (i.e., $r=.77$, $p<.01$), therefore we decided to create a composite variable by taking the means of the standardized scores in both anxiety scales. We continued the primary analysis with this composite score of anxiety.

Primary Analyses

Table 2

Standardized Beta Coefficients (β) from Multiple Regression Analyses Predicting the Composite Anxiety Score

	Regression Analysis 1	Regression Analysis 2
Age	-.071	-.061
NS	-.151*	-.171**
NF	.459***	.438***
HC	.010	-.001
VC	.089	.091
HI	.033	.044
VI	.013	.003
NS x HC		.019
NS x VC		.046
NS x HI		.127
NS x VI		-.076
NF x HC		.030
NF x VC		-.013
NF x HC		.058
NF x VI		-.090

Note. * $p < .05$; ** $p < .01$; *** $p < .001$;

NS = Need Satisfaction, NF = Need Frustration, HC = Horizontal Collectivism, VC = Vertical Collectivism, HI = Horizontal Individualism, VI = Vertical Individualism

Multiple linear regression analysis was used to test the hypotheses including cultural orientations, basic need satisfaction and frustration and age were in the prediction of total anxiety score. A significant regression equation was found ($F(7, 349)=28.415$, $p<.000$, $R^2=.36$) showing the only significant predictors of anxiety

scores to be need satisfaction and need frustration (see Table 2, Regression Analysis 1). Confirming Hypothesis 1a, both higher basic need satisfaction and lower need frustration are associated with lower scores in GAD symptoms. Furthermore, in line with Hypothesis 1b, we found the relation between anxiety scores and need frustration ($\beta=.46$, $p<.001$) to be stronger compared to its relation with need satisfaction ($\beta=-.15$, $p=.016$).

Although the cultural dimensions are not explaining any change in the anxiety scores, these could still be moderating the effect of basic psychological need satisfaction/frustration on anxiety scores. Results of a second multiple regression did not show any significant interactions between need satisfaction/frustration and anxiety scores (see Table 2, Regression Analysis 2). Again, the only significant predictors of total anxiety score were need satisfaction ($\beta=-.17$, $p=.008$) and need frustration ($\beta=.44$, $p<.001$). In other words, in line with Hypothesis 2, the relation between need satisfaction/frustration and GAD symptoms did not change in function of cultural orientation.

Discussion

The present study aimed to investigate the relationship between basic need satisfaction and need frustration and generalized anxiety disorder symptoms. Another purpose was also to reveal whether this relationship depends on cultural orientation. Ryan and Deci (2017) argue that the satisfaction of autonomy, competence and relatedness needs lead to well-being; hence the frustration of these needs lead to ill-being. Moreover, in contrast to cultural relativistic view (e.g., Markus et al., 1996), SDT posits that beneficial effects of need satisfaction and harmful effects of need frustration should apply to all human beings regardless of culture (Chirkov et al., 2003). Despite of the growing literature on SDT, present study is the first one to investigate the relationship between GAD symptoms and basic need satisfaction and frustration together with the interaction of cultural orientations. As expected, our results unveiled that higher need satisfaction and lower need frustration significantly predict lower GAD symptoms. Moreover, Vansteenkiste and Ryan (2013) argue that low need satisfaction hinders growth and integrity, but high need frustration is more detrimental and pathogenic. Borderline personality features (Neyrinck et al., 2019) and social anxiety symptoms (de Bruin et al., 2019) are shown to be predicted

stronger by need frustration in contrast to need satisfaction, which is supporting this argument. We added that, although both relations are significant, the relation of GAD with high need frustration is stronger than low need satisfaction. Said differently, the present study adds to this line of research, which is supporting SDT perspective by revealing that high need frustration is more strongly related to ill-being than low need satisfaction. Also as expected, the obtained relations between GAD symptoms and basic need satisfaction/frustration did not interact with cultural dimensions horizontal-vertical or individualism-collectivism. In other words, our study is incremental evidence supporting SDT's position stating that the basic psychological needs are universal.

The results of this study have some potential value for clinical practice, such that considering basic psychological needs in the treatment of anxiety might enhance its prognosis. Amongst others, the current effective psychological treatments of GAD are cognitive therapy, cognitive behavioral therapy, applied relaxation and emotion focused therapy (Fisher, 2006; Timulak et al., 2017). In our opinion, the more general theoretical stance of SDT and its applications might inform these therapeutic approaches, the more effective would therapies be. In this vein, Weinstein, Khabbas and Legate (2016) showed that interventions, which increased need satisfaction, lowered self-reported generalized stress symptoms in a sample of Syrian refugees. Participants, who were in the need satisfaction intervention group, were free to choose among activities which were asking them to positively connect with others by expressing their feelings of gratitude to a beloved one, which was aiming to increase need relatedness; or teach someone a skill they are good at, which was aiming to increase need competence. Results showed that the need-engaging intervention decreased this group's generalized stress compared to the control group. Therefore, clinical practices that enhance need-satisfying experiences can help buffer against profound stress and have a therapeutic effect in addition to existing frameworks.

Moreover, previous literature shows that the therapeutic relationship is one of the most important factors that contribute to positive treatment outcomes, among different type of psychotherapies (e.g., Beutler, 2006). The findings in this study suggest an analytical framework to analyze concrete ways for the therapists to improve the therapy outcomes. A therapist or counselor can provide an autonomy supporting context when pressure that enables someone engage in a specific behavior is minimized, and when individuals are encouraged to take action according to their

own values and reasons (Ryan et al., 2011). When a therapist for example facilitates clients to describe their own reasons for change, this would facilitate the clients to own or fully endorse these reasons. Also, a therapist who intervenes in such a way that the client participates with volition, might promote the client's adherence to therapy. Further, providing a clear structure for the client, showing confidence or noting small successes would enhance the client's competence satisfaction (Vansteenkiste & Neyrinck, 2010). More generally, Ryan et al. (2011) argue that when practitioners afford the skills and tools for change and when they support their clients in case of competence-related barriers, then they can increase competence satisfaction of their clients. Lastly, establishing a good relationship with the client by using the body language, showing empathy or acceptance would raise relatedness satisfaction during the sessions. Relatedness support can also be provided by the practitioner in the form of unconditional positive regard (Roth et al., 2009) or authentic and genuine involvement (Markland et al., 2005). This would enable the clients to feel understood and cared for, which would enable them to feel significant and safe to proceed (Ryan et al., 2011). All these three aspects that can be applied during therapy sessions by the therapists, would have an effect in decreasing the symptoms of GAD patients and enhance the therapy outcome.

However, the findings of the present study need to be considered in light of a number of limitations. First, all participants were recruited via an online platform and filled out the questions in their home or outside. Since the data is not collected in a lab but each participant answered the questionnaires in different contexts, environmental factors might have interfered with the results of the study. Also, it is a convenience sample, which is not a random sample. This makes the findings not easily generalizable. Second, participants' personality characteristics are not controlled in this study. Literature shows that neuroticism (Bourgeois & Brown, 2015) and positive/negative affectivity (Byllesby et al., 2016) are associated with GAD symptoms. Therefore, these personality characteristics might be interfering with our results. Future studies are suggested to control the mediation of personality characteristics. Third, our participants were mainly female, which may limit the generalizability of our study. Females report higher levels of worry and rumination (Robichaud, Dugas & Conway, 2003) and have higher prevalence rate of GAD (Bekker & van Mens-Verhulst, 2007), which might have influenced our results.

Fourth, our study is cross-sectional, not experimental. Therefore, although

theoretically we modeled basic need satisfaction and frustration to predict GAD symptoms, we cannot make causal inferences. There is a possibility that the individuals who tend to score high in GAD symptoms, are prone to higher need frustration or lower need satisfaction. This can be in a way that people with higher trait anxiety show more GAD symptoms (Kampman et al., 2017) and being anxious might also result in an increase in need frustration and/or decrease in need satisfaction. Therefore, to be able to have more clarity in the directionality of the relations, future studies could use a longitudinal or experimental design. For example, using a daily diary study, Verstuyf et al. (2013) investigated day-to-day variability within persons in binge eating symptoms and showed that there is a link between need frustration and binge eating symptoms, which is moderated by emotional eating. Moreover, Olafsen et al. (2017) has done a longitudinal research over fifteen months, revealing that need frustrating work contexts can have a detrimental effect on work-related outcomes and employee wellness. For future studies, the causal relationship between GAD and basic psychological needs can be investigated by having experimental and control groups, in which an intervention would be applied to the experimental group to decrease GAD symptoms and check how the basic psychological needs are affected.

Conclusion

Despite these limitations, the results of this study provide first indication that basic need satisfaction and especially need frustration predict GAD symptoms. This adds to the body of evidence showing need frustration to be a transdiagnostic process underlying the dark side of psychopathology. Moreover, we found this relationship to be independent of cultural orientation. On a broader level, this study adds to emerging evidence showing the basic psychological needs to be universal. Although we note limitations, these results have clear clinical implications, which can augment the prognosis during the therapy process. In case a practitioner provides an environment that would lead to an increase of the clients' feelings of autonomy, competence and relatedness, this would lower the ill being and enhance the therapy outcome.

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