

# Predicting properties of alexithymia on help-seeking attitudes towards professional psychological help: a call out to practitioners to redefine the counselling mindset

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## Abstract

*Research on why people underutilise mental health help-seeking sources has baffled the scientific community. Social, gender, attachment and clinical theories have all contested to illuminate the intricate nature of this observed behaviour, that leads to poorer mental health prognosis and even financial repercussions. This study examined the effects of alexithymia (externally oriented thinking 'EOT', difficulty identifying feelings 'DIF', and difficulty describing feelings 'DDF'), and prior counselling utilisation on the prediction of help-seeking attitudes. Potential sex differences were also examined in separate regression models. The analysis was carried out with a sample consisting of 557 utilisers and non-utilisers. Results found that EOT was the most consistent predictor, overpassing the effects of total sessions and DIF. DDF was found not a statistically significant predictor. However, separate analyses determined distinct sex differences in alexithymic pathways to help-seeking attitudes. Theoretical and practical implications are critically discussed in relation to early prevention, therapeutic planning, and counselling reformations.*

**Key words:** Help-seeking, attitudes, alexithymia, counselling, sex differences, therapeutic planning.

## 1. Introduction

At any point, as many as a third of Europe's population is subject to a diagnosable mental disorder (1), with scholars suggesting that quality of life and disability for the people affected being more negatively impacted as opposed to physical conditions (2). In fact, 43-77% of the population in the US, Australia, and Europe who meet criteria for a mental disorder have yet to receive any form of professionalised treatment (3, 4, 5, 6). Ultimately, prolonged periods of untreated conditions foster barriers for future treatment outcome (7), potential hospitalisation, increased likelihood for suicide attempts, work disability (8), all of which accumulate into more economic costs and public funds spent (9).

What is more, severe diagnoses (e.g. bipolar disorder, psychosis, suicide attempts, other comorbid diagnoses) receive higher proportions of treatment (10, 11, 8, 12), as studies highlight that professional help-seeking habits increase with symptom/distress severity, meaning that people with subthreshold symptomatology on average seek consultation when their daily functioning has been critically compromised (13, 14, 15, 16, 17, 18). As World Health Organization surveys postulate, the majority of people (especially mild and moderate diagnoses) do not seek psychological treatment due to attitudinal barriers or low perceived need for help (19), reflecting possibly a gap in public literacy in relation to mental health that needs to be addressed by practitioners (18, 6, 20, 21, 22).

This gap has been a main point of debate, as a growing number of studies yield varying degrees of negative attitudes towards professional psychological help (ATPPH) are still prevalent among the general public, with many socio-demographic and personality attributes having an influence on one's views (23). Thus, when considering that positive attitudes increase perceived need and utilisation for mental health care services (24, 25) up to a 2.5-fold scale (26, 27), it concludes that this factor is of paramount importance for its practical implications in term of early prevention and clinical detection of psychological difficulties.

### 1.2.1. Attitudes and Stigma Towards Psychological Treatment and Mental Health

According to Fazio (28), *attitudes* serve as evaluations of planned or performed behaviours that fall into spectrum ranging from favourable to unfavourable beliefs. Elaborating on this concept, Ajzen and Fishbein (29) purported through the *theory of reasoned action* that behavioural activation is underlined by conscious attitudes about a particular behaviour, meaning that if a behaviour leads to the positive outcome then the attitude towards that behaviour is designated as positive, and vice versa. Consistent with this view, if seeking mental health services is associated with unfavourable attitudes, then negative perceptions are attached to that behaviour (30). Thus, this theory emphasises that behaviours are a result of a single information-processing pathway that relies on rational conscious thoughts (31).

Interestingly, while it is widely studied that having a mental disorder is negatively stigmatised to fluctuating degrees (32) even in egalitarian countries like Sweden (controlling for factors such as gender, proximity or previous contact, academic level, see also 33, 34), the mere act of seeking help from counselling services -without a diagnosable condition- has been viewed as equally socially unfavourable due to negative perceived social desirability attitudes (35, 36). Therefore, the act of seeking help for psychological help has been jeopardised by *stigmatisation* (30) and begs the question of help-seeking attitude's agency concerning the underutilisation of mental health services.

Empirical findings cite that *Stigma* falls into two categories: a) *public stigma*: the collective view of an unfavourable action that lead to negative group reactions, and b) *self-stigma*: the is the self-image that is negatively influenced by socially favourable attitudes, and diminishes self-efficacy and formation of positive/health attitudes (30, 37, 38). These two variables have been researched in relation to ATPPH, and empirical findings indicate that public stigma and self-stigma act as distinct factors with public stigma positively predicting self-stigma which in turn negative predicted ATPPH, meaning that self-stigma fully mediates both variables (39, See also 16, 40, 41). In fact, a meta-analysis reveals that after

controlling for psychological factors (i.e. positive correlations: anticipated benefit, self-disclosure and social support; negative correlations: anticipated risks, self-concealment and depression) indicated that self-stigma was the strongest predictor and had the strongest effect size on negative attitudes for help-seeking (42). Therefore, these findings point that stigma does not only occur in collective thought, but it is also invariably internalised as self-stigma, which in turn independently affects people's attitudes towards the nature of their own mental health (43), a process that has been invariably validated cross-culturally, with regional variations suggesting different construct validity (44). Nonetheless, this distinction alludes that awareness of public stigma does not necessarily interfere with self-stigma, as factors including previous health-care experience or knowing someone who received treatment may also positively contribute to help-seeking attitudes (39, 45). It concludes then that the assessment of help-seeking attitudes, along with their independent contributing variances can fluctuate from global to individual levels of experience (46).

### 1.2.2. Demographic and Cultural Differences: A Social Perspective

As Vogel, Schetchtman and Wage (41) succinctly point, men are far more likely to internalise public stigma as opposed to women (See also 47). Indeed, empirical findings unanimously point that men have more negative attitudes towards psychological treatment (48, 49, 50). This can be partially explained by relevant literature pointing that men who adhere to gender-roles tend to undervalue psychological treatment due to the imminent danger of perceived self-stigmatisation (51).

Specifically, this theoretical approach purports that Gender-Role Conflict fosters negative help-seeking attitudes (though again self-stigma partially mediated this relationship, See also 51, 52) by men who predominantly adhere to norms of emotional inexpressiveness and stability, features that are traditionally associated with phenotypic masculinity. Noticeably, homosexual men hold more favourable views towards counselling while adhere significantly lower to tra-

ditional masculinity, as compared to heterosexual men (53). To put this into perspective, a study concluded that men demonstrated more positive views when viewed a cognitive-focused session as opposed to an emotionally focused one, coinciding with the standpoint that men who acquire traditional values negate their emotional expression (54). However, given the choice of anonymous help-seeking, sex differences do not pave the path to help-seeking differences, meaning that even men with the worse attitudes are keener to seek professional help when their actions are not publicly revealed (16). Similarly, men who know someone who has received help are twice as likely to seek help and hold more positive help-seeking attitudes (this effect was not observed in female subjects), meaning that the path to help-seeking may be explained by psychosocial interactions that circumvent stigma (45).

Furthermore, mounting evidence contest the simplicity of this trajectory since in-between sex-differences are larger in Caucasian American samples than corresponding Asian or Asian-American populations (49). Indeed, this sex-divisive trend seems to be predominantly represented in Western cultures, as studies extrapolate that Asian cultures display smaller skews in relations to gender expressions on help-seeking attitudes, meaning that both men and women hold on average similar levels of negative attitudes (55, 56). A likely explanation lies at the differences in collectivistic and individualistic cultures, as Asian societies place greater value in conformity with family and group norms and beliefs, meaning that collectivist-driven traits may negatively interfere help-seeking attitudes (57). Note however that the formulation discounts for confounding non-societal factors. Indeed, cultures that are more individualistic-driven hold fewer stigmatising attitudes towards mental illness, which could be explained by the hypothesis that collectivistic cultures hold lower levels of diversity tolerance (58). This is also evident in cases of settling community members, as British Asians exhibit more favourable attitudes towards help-seeking in comparison to their Pakistani counterparts who held more traditional beliefs of supernatural causes in relation to mental-health, thus reflecting a process of acculturation in

favour of British Asians towards the prevailing value/belief system (59, Also 60, 61). Similar to white Westerners, highly acculturated Asian women report more positive attitudes towards help-seeking in strike contrast to men (62, 63), designating that negative attitudes towards help-seeking are an integral part of collective thought, and that the sex-diverse trend can also affect acculturated community members. Nonetheless, pathways of stigmatisation differentiate in minority groups that score lower on self-stigmatisation, indicating again that minority group thinking diverges from the prevailing culture's thinking (53).

The geographical effect on help-seeking attitudes is also observable in urban vs rural residents both in collectivistic (64) and individualistic nations (65, 66). Particularly, rural people lean towards attributing mental health problems to ego-centred sources (i.e. weak character) which possibly explains why urban residents score lower on attitudes towards help-seeking (67). This pattern may also reflect the low availability of mental health services, confidentiality issues, and the increased likelihood for dual-relationships which may possibly contribute into forming unfavourable attitudes towards help-seeking (65). Therefore, systems of thought regarding help-seeking attitudes are ecologically bound to the prevailing societal norms that iterate societal survival adaptations.

Positive attitudes are also predicted by higher academic level (56, 59, 65, 68), with some concluding that achieving a postgraduate degree significantly minimises the effects of self-stigma and adherence to masculine forms which in turn predict positive attitudes (65). Finally, many studies coincide that higher educational level is also indicative to openness and value in help-seeking, meaning that people of low educational background resort to self-coping due to low mental health literacy (17, 56, 69).

### 1.2.3. A Perspective of Greece

On a global perspective, the mainstream Greek society has been in a shifting process from being a predominant agrarian society to an industrialised one. As such the Greek society has been described as the middle point between col-

lectivistic and individualistic cultures (70 See also 71), with Georgas (72) discerning that urbanised Greeks of Athens having more individualistic-driven values than their rural counterparts, reflecting again an acculturation process incepting in urbanised areas that is extended gradually to rural communities. That is, urbanised Greeks are more rejecting of traditional agrarian-driven values (i.e. fathers should handle money in the household), with female subjects being more rejecting than males. Georgas (72) argues that the shift of values is explained by the effect of the immediacy of the large extended family system in small communities, and the opposing nuclear families in large communities, where extended family members are less proximal and thus less influential in maintaining traditional values.

In terms of help-seeking, although documented Greek studies are scarce, the prevailing pattern in Western countries elaborated above is similarly observed. In particular, Madianos, and colleagues (7) compared subjects were receiving psychiatric treatment and first timers, and corroborated with the aforementioned data by finding that that symptom severity, prior contact with mental health professional, female sex, and higher education were factors that correlated with higher positive attitudes. Indicative of the exposure to higher education is the study of Constantinou, Georgiou and Perdikogianni (73). By using a mixed method approach, they concluded that medical students expressed in general favourable attitudes towards psychotherapy but were nonetheless more reluctant to refer a patient due to perceived social stigmatising barriers. In fact, in terms of stigmatisation Greek men are more likely to have more negative attitudes and experience more self-stigma and public stigma as opposed to women (47), concurring again previous studies. Finally, the attitudinal manifestation of Greek values can be also observed among Greek-Americans expats, as more acculturated women exhibited more favourable views towards counselling and psychotherapy than alike acculturated men, while the gender-effect was not found among low-aculturated individuals (74). Even though the study was not short of limitations (i.e. sampling consisted of students from one East-coast U.S. city), the accumulative evidence delineates

that cultural values are an indispensable component for the theoretical grounding of help-seeking behaviours.

#### 1.2.4. Shortcomings of the Social Paradigm

Even though the stigmatisation effects on ATPPH have been widely researched and have adequately provided a preliminary mapping of how attitudes are shaped and manifested, nevertheless, Clement and colleagues (75) conclude that stigma has an overall small to moderate effective size on help-seeking behaviours, meaning that confounding variables are also implicated in the formation of negative attitudes. Additionally, the nature of the causality as well as the direction remains unclear as to whether stigma is a measured consequence of psychopathology or an attitudinal predisposition (76). Therefore, researchers deduce that the field needs to expand its understanding on how negative help-seeking attitudes by examining individual differences that influence one's decision process in relation to professional psychological help-seeking (77). For instance, personality traits remain relatively unchanged over time and may potentially represent underlying contributing factors to observed behaviours (78), and thus may shed light over the psychological underpinnings of self-stigmatisation (38). In manner of example, Atik and Yalçin (79) found that higher extraversion and agreeableness predicted positive help-seeking attitudes. To sum up, the assessment of stable personality traits in relation to ATPPH may reveal a solid trajectory that mediates the association between contributing factors and help-seeking attitudes.

#### 1.3.1. Help-Seeing in the Context of Attachment Theory

One field that sheds light over the underlying mechanisms of help-seeking in relation to individual differences is the theory of attachment. Specifically, adult attachment theory posits that the way individuals relate to one another is primarily fomented by the internal working models fomented in the early years of childhood (80). These primary representations function as mediators for emotional regulation in times of distress, fear, and anxiety and eventually take

the form of expectations regarding the outside world, particularly human relationships (81). As such, internal working models of the self are reflected into adult attachment patterns and have been categorised into two trajectories: *anxiety* and *avoidance*. Anxiety refers to the persistent need for self-validation from others while maintaining a negative view of the self, while avoidance refers to a positive self-image and the pattern of rejecting other's help which fosters a ground for self-reliance (82, 83). Therefore, if the sense self is inextricably connected to the sense of others for the self (84, 85), it goes without saying that the abilities to perceive and subsequently use support-seeking behaviours are compromised in insecurely attached relationships (86, 87).

Furthermore, working models may vary from different relationships (88) to situational contexts (80). Considering that the psychotherapeutic frame is an extension of human relationships that evokes attachment behaviours (89), researchers have studied the effects of adult attachment in relation to help-seeking attitudes, and studies consistently yield that individuals scoring higher on avoidance (having positive view of self-negative for others) are less likely seek help from mental health experts (90, 91). Some go on to say that the path to seek help is mediated by lower denial of distress, higher perceived social support (92), lower risk anticipation and more perceived benefits in anxious individuals, and conversely for avoidant patterns. Note though the latter factors were only fully mediated for the avoidant individuals, purporting that imponderable factors have not been identified for remaining attachment spectrum (93).

Finally, attachment theorists pinpoint that insecure relational nurture may arouse negative evaluation for the importance of others, developing therefore avoidant behaviours that impede the likelihood of help-seeking from social networks. These claims are consistent with the studies concluding that dismissing-avoidant individuals experience intense emotional reactivity more often, as they perceive threatening signs more frequently which reinforces maladaptive inhibitors of help-seeking (94). Indeed, Howerton and colleagues (95) report for male offenders that the most frequent justification for mental health care underutilisation is the sense of

distrust towards clinicians, a sense that they associated with the experience of abusive family backgrounds. Thus, the attachment paradigm expands the theoretical background by highlighting the influence of child rearing practices in relation to help-seeking.

### 1.3.2. Shortcomings of the Attachment Paradigm

Yet, viewing help-seeking behaviours through the lens of the attachment example, narrows the scientific scope to a relational understanding (80) of the formulation and preservation of negative attitudes towards help-seeking. Therefore, a holistic approach needs to address how attachment influences personality traits that mediate help-seeking attitudes. As such, alexithymia is critically discussed in relation help-seeking attitudes below.

## 1.4. Alexithymia

Introduced by Sifneos (96), *alexithymia* (Greek: 'a'= lacking, 'lexis'= word, Ancient Greek: 'alexo'= repel or protect, and 'thymos'= mood or emotion) is a clinical term that designates an impaired aptitude for emotional-affective insight, which manifests in the inability to verbalise emotional states, especially when faced with stressful stimulus that may result into maladaptive reactions. In particular, alexithymia is observed in people who exhibit difficulty to distinguish between different emotions and communicate feelings to others, have limited imagination-fantasy, present mainly physical symptoms over affective symptoms, and their thought tends to be directed by external reality rather than through emotional insight (97, 98, 99). However, it is crucial to note that the latter component has shown to function differently for people descending from individualistic communities than in collectivistic ones who score higher in external oriented thinking. Specifically, authors are arguing that the direction of the importance of emotional experience may also represent non-pathological societal differences that are bound to value-driven systems, as Western values emphasise inner experiences while Eastern communities emphasise emotional conformity to external social stimuli (100). This is

evident also in the manifestation of depressive symptoms, as internal orientation correlates with pronounced psychological symptomatology (e.g. low mood), whereas external orientation seems to increase somatic symptoms (101, 102).

Alexithymia falls into a continuum of clinical, subthreshold and non-clinical features, acting independently of situational settings (103, 104), and represents a stable personality trait, as longitudinal studies in both clinical and non-clinical subjects suggest that it remains relatively unchanged over time (105, 106, 107). Phenotypically, alexithymia is explained by the temporary relief that procures through experiential avoidance of introspective cues like intrusive bodily sensations, feeling, or memories (108, 109), resulting in poorer abilities in identifying emotional states (110). This comes as no surprise as the ability to redirect attention away from inner experience interferes with the ability to detect introspective bodily signals (111, 112), which in turn also predicts incremental symptom severity, meaning that alexithymic traits weaken the ability to identify early symptoms that indicate the need for help which prolongs treatment underutilisation (113, 114, 115, 116). Moreover, the avoidance of intense negative feelings pattern can be elucidated by the hypo-activation in heart rate and startle responses in alexithymic individuals when faced with emotional processing tasks (117). However, this is not to say that alexithymic people do not experience negative affect altogether. To the contrary, experimental settings display that alexithymic people do experience negative affect hyperarousal more intensely and continue to even after the exposure to experimental stressors indicating again patterns of affective dysregulation (118).

In addition to the phenomenological documentation, Peasley-Miklus, Panayiotou and Vrana (119) yield physiological evidence to attest the clinical observations of alexithymic traits. By comparing self-reported and physiological arousal responses (i.e. heart-rate, facial movements, skin conductance) through stress-induced emotional imagery task (in low, medium, and high arousal conditions), the researchers found that individuals with strong alexithymic traits yield discordant levels of self-reported and physiological arousal. Furthermore, while controls yielded low heart rate in emo-

tional neutral conditions, a slight increase in heart rate was observed in neutral imagery compared to action imagery for the alexithymic group. Thus, they proposed that alexithymia manifests in deficits in emotional regulation/processing originating in parasympathetic dysfunction (118) and that alexithymic responses may represent maladaptive variations of affective numbing and dissociation (120, 121). Indeed, indicative of the disruption of the parasympathetic nervous system, to which heart rate is modulated, is that higher alexithymia increases the risk for cardiovascular mortality by 1.2% for each self-reported point (122).

As regards to a potential theoretical framework, alexithymic processes have been hypothesised to be an evolutionary product that manifests in adaptive, stress-related, inhibition mechanisms. These adaptive mechanisms provide a protective buffer from daily intensive affective responses and ultimately facilitate day-to-day psychological adjustment (123). Nonetheless, people who engage in over-protecting practices to avoid stress-related challenges may fail to develop the adaptive mechanisms to successfully cope with negative affect (124). In fact, reduced negative affect processing (predicted by high externally oriented thinking) may even extend to positive affect (anhedonia), meaning that the health benefits of eustress experience are not met (125). Putting these findings into a psychotherapeutic perspective, being unable to identify and consequently putting into words traumatic experiences, these experiences remain "raw" and meaningless to the client which restricts the magnitude of potential post-traumatic growth (126).

While the term was initially used to describe subclinical personality characteristics in people with psychosomatic disorders (96), like inflammatory bowel disease (127), rheumatoid arthritis, hypertension, or peptic ulcer (128), a growing consensus purports that difficulties in identifying emotions are associated with a range of psychopathological conditions (129, 130, 131, 132). Yet it remains unclear on whether it represents a prodromal risk factor or an offshoot of pronounced clinical symptomatology. Addressing this question, Kench and Irwin (133) postulate that alexithymia (total, difficulty describing and identifying feelings) is pos-

itively predicted by low family expressiveness, cohesion, family idealisation, intellectual-cultural orientation, and by high family enmeshment, conflict and permissive parenting style. Thus, although family functioning has a modest degree of prediction (16% of variance), it concludes that high alexithymia in adulthood is associated with received poor parent skills in identifying emotions in childhood (See also 134, 135, 136). This pattern corroborates empirical evidence suggesting that parent ability to identify and communicate emotions in early infancy facilitates child emotional regulation and social competence (137). Others stress that alexithymic responses are a product of intergenerational transmission, as decreased parental couple ability to describe and identify emotions predicts similar scores in their children, which in turn incrementally predict psychiatric symptomatology (138, 139). Lastly, by bridging the aforementioned attachment-based studies, it has been extensively pointed out that alexithymia is strongly represented in insecure attachment styles (140, 141, 142, 143), as insecure attachment parenting is believed to prohibit the processing of emotional states (144). In sum, it appears that poor early familial experiences cement the foundations for poor coping skills that are otherwise expressed through alexithymic traits.

On the other hand, genetic markers have been documented in twin studies, and appear to explain 30-33% of alexithymic traits (excluding the ability to identify emotions), while the remaining percentages are believed to be determined epigenetically, indicating a predetermined ability of emotional appraisal that is subject to environmental factors (145, 146). Taken together, the findings suggest an interaction between inherit personality traits and attachment-bonding processes seems to contribute to the onset and development of alexithymia (147), though the magnitude and/or path of causation remains to be established.

### 1.5. Overview and Rationale of Study

The emotional mechanisms of help-seeking attracted the attention of many scholars, though the measurements and the nature of help-seeking have varied from study to study.

Initially, a number of studies comparing trait emotional intelligence and alexithymia in relation to intentions to seek help (148, 149, 150) conclude that adolescents with the lowest emotional skills (including managing emotions, identifying and describing feelings) had the lowest intentions to seek help, while increased experience with mental health professionals accounted for higher intentions. However, it is crucial to distinguish that behavioural activation, namely help-seeking, is a by-product of behavioural attitudes, as well as existing subjective norms, and perceptual prototypes regarding counselling, that in turn predict independently behavioural intentions and willingness, following a mediating linear relationship (65). Structural analyses yield that attitudes positively predicted both willingness (.40) and intentions (.41), though in relation to subjective norms demonstrated disparate estimates (.51 and .20 correspondingly) (151). Also known as the dual-process prototype/willingness model (PWM; 152), the theoretical framework extends the theory of reason action (29), by asserting that spontaneous willingness, as opposed to pre-planned intentions, significantly predicts help-seeking behaviours through a social/attitudinal pathway (153). Consequently, given that spontaneous behaviour prompt help-seeking, it becomes imperative to comprehend prospective components that influence the linear relationship of attitudes to the willingness to seek help, as findings suggest that attitude alteration accounts for increased mental health utilisation (154). Finally, the studies did not measure external-oriented thinking, a factor that has been pinpointed to be directly relevant to the unpacking of cultural differences (101). Taken together this study addresses this gap of knowledge by examining effects of external-oriented thinking in Greek subjects in relation to help-seeking attitudes, in quest of cultural underpinnings that elucidate help-seeking attitudes.

Additionally, a total of two studies consisting of male subjects has investigated alexithymia in relation to help-seeking attitudes. Testing alexithymia through the lens of Normative Male Alexithymia (non-clinical measure) which implicates traditional male responses -like emotional restrictiveness-

with gender-specific socialising practices (155), Sullivan, Camic and Brown (156) found that male alexithymia partially (3%) explained the variance of negative help-seeking attitudes, and it was retrospectively hypothesised that it fully mediate fear of intimacy. These findings were in line with Berger and colleague's (157) study -consisting of non-clinical subjects- supporting that masculine ideology negatively interferes with help-seeking. However, statistically significant levels were not reached for alexithymia, though this may account for the fact that the *Bermond-Vorst Alexithymia Questionnaire* measured clinical alexithymia, while the sampling pool was low (N=155) which may have had lacked additional statistical variance. Taking everything into account, these studies investigated the effect of stereotypically associated male values, like emotional constraint, that were theoretically associated with alexithymia, and point that they contribute to a significant -yet limited- level of negative help-seeking attitudes. In view of methodological and theoretical limitations, both studies recruited exclusively male subjects and investigated male-associated traditional belief systems in relation to help-seeking attitudes. This means that the longitudinal scope remains limited to a specific male sub-population adhering to conservative values, even though accumulative research concludes that although men exhibit overall higher alexithymia, in-between scores significantly overlap indicating consistent, yet small sex differences (158). In fact, a study yielded that once measuring both masculine and feminine values, femininity emerges as the strongest predictor for decreased mental health stigma, and thus masculinity represents an overlapping behavioural construct (159). This means that other forms whiten the continuum of masculinities are omitted (160), while it is also known that personality factors mediate measured masculinity in predicting help-seeking attitudes as measured by lower effect sizes (161). Therefore, by measuring alexithymia as a shared personality trait, the study aims to determine prospective psychological processes and that intermeditate with help-seeking attitudes, while also accounting for prospective sex differences. Finally, studies reporting overall scores can potentially be misleading, as separate facets have shown to yield independent differences (162); thus,

this study will make separate reports for each facet to unveil independent underlying processes.

### 1.6. Aim of Study

The aim of this study was to determine whether alexithymia, (including difficulty describing feelings, difficulty identifying feelings, and external orientated thinking), and prior contact with counselling/psychotherapeutic agency would predict attitudes towards professional psychological help. The research hypotheses are as follows:

**H<sub>1</sub>:** *Higher presence of alexithymic traits and lower number of undertaken sessions predict negative attitudes towards help-seeking*

**H<sub>0</sub>:** *The presence of alexithymic traits and total number of undertaken sessions do not predict attitudes towards help-seeking*

Finally, the following research questions were also formulated:

*Does greater difficulty to describe feelings will predict negative attitudes towards help-seeking?*

*Does greater difficulty to identify feelings will predict negative attitudes towards help-seeking?*

*Does greater Higher external orientated thinking will predict negative attitudes towards help-seeking?*

*Does greater Prior contact with counselling/psychotherapeutic agency will predict positive attitudes towards help-seeking?*

*Do men's and women's attitudes towards help-seeking are equally predicted by the same alexithymic facets?*

## 2. Methodology

### 2.1. Design

The study implemented a Multiple Linear Regression Analysis by examining the independent variables difficulty identifying feelings (DIF), difficulty describing feelings (DDF), and externally oriented thinking (EOT), and amount of partaken

sessions on attitudes towards professional psychological help (ATPPH). This method is empirically congruent with scientific research, the field of personality research by determining between multiple factors and effects, as this field entails a complex system of interconnected constructs. Therefore, this technique can meet the purpose of this study as it amplifies the data analysis. Finally, multivariate analysis minimises type 1 errors (positive false) by conducting multiple simultaneous comparisons among experimental variables, without however omitting the statistical significance threshold ( $\alpha = .05$ ) (163).

### 2.2. Sampling

#### 2.2.1. Demographics

A total of 557 participants between the ages of 18 and 80 years were recruited from various sources from the greater area of Athens and consisted of 354 women (63.9%), 200 men (35.9%), while the remaining 3 (0.5%) participants reported unassigned sex. Mean age for the sample was 36.15 (Std. Deviation = 13.56). These participants were included only into the main analysis and were thus exclude in the separate analyses. 44.2 % of the sampling pool were aged 18 to 31, 27.8% were between 32 and 45, 21.2% were 46 to 59, and 6.3% were aged 60 and above.

In terms of educational background, the majority of the sample (72.5%) was represented by subjects of higher educational background and/or were currently attending college (Bachelor's Degree 46.1%, Master's Degree 24.6%, PhD/Doctorate 1.8%), while there was also a significant representation (22.8%) of people who had completed lower/basic educational (Primary School 2%, Lower Secondary School 2.4%, Upper Secondary School 18.3%). 4.8% of the sample reported as other educational backgrounds (i.e. community college, technical training).

Most sampled participants (58.5%) had not sought counselling or psychotherapeutic services before the study. The remaining 41.5% were grouped into participants who were currently attending counselling/psychotherapeutic services

(20.6%), participants that had completed their therapeutic contract (15.2%), and finally, partakers that had dropped out (5.8%). The most frequent source of counselling services received, at 66.1%, was from a private therapist, following by 17.2% from social services, 2.6% from a mental hospital/clinic, 2.1% from an NGO/Day centre, and 1.3% from unspecified sources. A remaining 10.7% had sought counselling services from two or more sources. Finally, session attendance ranged from 0 to 520 sessions (Mean = 26.00, Std. Deviation = 69.18).

### 2.2.2. Sampling Methods

To maximise the accessibility of prospective participants and to minimise the possibility of *sampling bias* (164), a blend of random and non-random sampling designs was implemented in current study. Initially, through cluster sampling that targets naturally occurring overlapping demographic subgroups (165), prospective participants were identified through leaflet dissemination to streaming passengers at Syntagma Square, Athens. However, this may also result into underrepresentation of specific clusters (164).

Through availability sampling (166), participants were also recruited through two Municipal Social Services Boroughs (These included the Social Service of the Municipality of Ilion, and the Counselling Centre-Social Service of the Municipality of Petroupoli) These included individuals receiving counselling services, guardians of children receiving psychotherapy, and attendees for all other purposes. Available subjects were also recruited from attending members of a local Greek Orthodox Church (Agios Konstantinos 'Church of Saint Constantine', Acharne, GR) after Sunday mass, parents of adults with intellectual disability at a Day Centre (Er-

gastiri - Lilian Voudouri), and attendees receiving services at an NGO (Society of the Unborn Child - The Embrace, Athens, GR).

Furthermore, the study was introduced to prospective participants through online services, powered by Google Forms. In line, the form was snowballed to students from a private college (Mediterranean College, Athens, GR), and a Greek website that hosted news about social and political aspects of social welfare (Social-policy.gr). Access to the online forms was also made available by posted advertisements at the Public Counselling Centre, the private college, and a Youth Centre (Connect Your City, IASIS NGO).

Using the statistical software *G\*Power* (Version: 3.1.9.2.), power calculations were conducted to establish a suitable sample size. Similar studies like Berger *et al.*, (157) predicted help-seeking attitudes by controlling for Gender Role Conflict, Traditional Masculinity Ideology, and Alexithymia. Although alexithymia was measured using the *Bermond-Vorst Alexithymia Questionnaire*, correlational research suggests that its cognitive composite consisting of three subscales have demonstrated a strong correlation (.80) with three-model of TAS-20, indicating therefore, an identical level of measurement (Vorst and Bermond, 2001). Hence, based on a moderate effect size ( $f^2$  .0277, 157), setting a statistical power of .80 as suggested by literature (167, 168, 169), as well as the significance level  $\alpha$  at .05 to decrease the risk of a type II error (170), and controlling for four predictors (DIF, DDF, EOT and Sessions), an *a priori* analysis indicated that a minimum of 49 participants was required (Appendix 1). The study recruited additional participants to increase statistical power and to decrease the probability of conducting a type II error (170), to decrease estimations error (the

**Table 1. Number of participants per sampling method and source of recruitment.**

	Passengers Syntagma Square	Greek Orthodox Church	Day Centre	NGO	Municipal Social Services	Private College	Website	Youth Centre
Cluster sampling	122	24	31	29	20	N/A		
Snowballing	N/A	N/A	N/A	N/A	331			

possibility that the mean will not be overall representable) (171), and finally to increase the representation of naturally occurring individual differences that would expand the interpretive validity of the results (172).

### 2.3. Materials

#### 2.3.1. Demographic Variables

All participants were asked to fill out an ad hoc demographic information questionnaire. This section comprised of the participant's demographic variables including: age, sex (male, female and other), educational background (primary school, lower secondary school, upper secondary school, bachelor's degree, master's degree, PhD, and other qualification), counselling status (currently attending, attended-contract completed, dropped out, never attended), source of counselling services received (social services, private therapist, NGO/day Centre, hospital/clinic, other source), and amount of sessions undertaken ('0' was assigned to subjects that had not undertaken counselling/psychotherapy). Sessions and age that were computed as ordinal variables, while all other factors were computerised as categorical variables.

#### 2.3.2. Measures

Following, the participants were invited to fill in two questionnaires: *Attitudes Towards Professional Psychological Help Short-Form* (ATPPH-SF Greek Version). The scale measures the attitudinal spectrum from positive to negative attitudes towards mental-health help-seeking with emphasis on counselling and psychotherapy (173). Being a revising the original 29-item version scale (23) as the original scale was widely criticised for being outdated (174), the refined short-form version comprised of 10 self-reported items ('A person should work out his or her own problems; getting psychological counselling would be a last resort'), and has gained prominent psychometric utility among similar scales as it remains the single most frequently used instrument in studying mental health-related help-seeking (23,30, 56).

The standardised Greek version is based on the original questionnaire produced by Fischer and Farina (173) and uses a 4-point Likert-type scale ranging from 1 (*Disagree*) to 4 (*Agree*). Items 2, 4, 8, 9, and 10 are reverse scored, and the total sum indicates favourable views for higher scores, while non-favourable attitudes are indicated by lower scores. Scoring spans from 10 to 40. Internal consistency-reliability for the Greek version is  $\alpha = .76$  which is considered a statistically acceptable level (175), while the 1-month test-retest reliability was .89 (47) (Appendix 2).

#### *Toronto Alexithymia Scale* (TAS-20-G)

Initially developed by Bagby, Parker and Taylor (176, 177), the original TAS is subdivided into three distinct factors: 1) DIF (seven items), which assesses self-perceived difficulty in identifying emotions and the ability to differentiate them from somatic responses to emotional arousal ('I have feelings that I can't quite identify'), 2) DDF (five items), which measures self-perceived difficulty to describe feelings in social contexts ('People tell me to describe more my feelings'), and 3) EOT (eight items), that has been documented to indirectly assess imaginal processes and pragmatic thinking ('I find examination of my feelings useful in solving personal problems.') (176). The latter is also considered as an approach to thinking about emotional states (101). The scale uses a self-reported 5-point Likert system, ranges from 1 (*strongly disagree*) to 5 (*strongly agree*). Reversed items include 4, 5, 10, 18, and 19. Scoring is set between 20 and 100, with lower scores indicating lower alexithymic traits (178).

Ever since, the concept has been validated cross-culturally in both clinical and non-clinical samples and is thought to represent a universal trait across cultural backgrounds (179). In recent years the Greek scale was validated with the internal reliability estimated at an acceptable level  $\alpha = .79$ . However, although DIF and DDF demonstrated roughly similar  $\alpha$  coefficients respectively (.74 and .79), reliability for the EOT factor scale fell below recommended standards (.58) (178). This finding has been replicated in others cross-cultural studies (179), with some going on to say that the items composing this factor should be revised (180). Nevertheless, confirmatory factor analysis indicates statistical superiority

for the three-factor model over other models, while inter-item coefficient (which is a reliable measure for statistical cohesiveness) demonstrated that EOT represents a homogenous subscale. Therefore, the authors qualified TAS-20-G as a reliable and valid measure of alexithymia for both clinical and non-clinical populations (178) (Appendix 3).

## 2.4. Procedure

Provided ethical clearance by the university's ethics committee, the researcher invited prospective participants from various sources (See sampling methods). Prospective participants were informed about the study's criteria and participation rights (i.e. data withdrawal) through the information sheet (Appendix 4) before admitting consensual participation by signing the consent form (Appendix 5). Subsequently, consenting participants completed the ATPPH-SF, the TAS-20-GR, and the demographic section. Finally, debriefed participants were informed about the study's objectives and prior research and were subsequently provided with the participation code (Appendix 6). The protocol was followed by both *vires a vis* and online participating subjects.

## 3. Results

### 3.1. Parametric Assumption Testing and Scale Reliability

Descriptive statistics and internal consistency data are presented in Table 2. Both scales displayed good internal validity and were thus included in data analysis.

Assumption testing was conducted using the following steps:

Outliers were detected by using distribution graphs including Boxplots and P-P plots and were thus excluded from the analysis. This method is indicative for eliminating parameter bias in calculated sum of squared errors, which in turn calculates standard deviations, standard errors and confidence intervals (CI) (170), while it also eliminates the possibility of inflating estimates that negatively influence significance tests (181) (Appendix 8). Consequently, a total

**Table 2. Means, standard deviations, Alpha coefficients and number of valid sampled participants of measures**

Measure	M	SD	$\alpha$	N (listwise deletion based on variables in the procedure)
ATPPH-GR	31.36	5.21	.773	549
TAS-20-GR	45.71	11.39	.849	549
Age	36.15	13.56	-	538
Sessions	26.00	69.18	-	538
Note, ATPPH = Attitudes Towards Professional Psychological Help Short Form Greek, TAS-20-GR = Toronto Alexithymia Scale Greek				

of 543 participants were included in the next phase of the analysis.

Likewise, diagnostics matrixes indicated that normally distributed variables had a mean of 0 as observed, while homoscedasticity and linearity assumptions were also met. The Durbin-Watson test indicated that the model was independent of residual correlations (2.033) (Appendix 8). Furthermore, a bootstrapping approach was implemented to detect indirect effects by constructing CI (182) and exert control over type 1 error while increasing statistical power (183). This non-parametric method controls for the assumption that normality of distribution produces equal number of errors, as it reproduces 2000 parameters of the original sample (170). Although there no consensus as to how many bootstrap samples constitute enough, the study used 2000 samples to determine CI and indirect effects as recommended by Field (184). However, it should also be noted that the *central limit theorem* posits that normality can be assumed in different situations and/or in large samples (>500), and therefore inferences can also be based on means and variances (185). As such normality testing through Kolmogorov-Smirnoff test was opted out (170).

Multicollinearity was diagnosed by scanning the correlational matrix between tested variables, and by estimating the variance inflation factor (VIF). This assumption accounts for the individual importance of the independent predictors, by calculating correlated predictors that share similar

variance in the outcome. VIF diagnostics indicated no collinearity as Table 3 shows that correlations fall into acceptable ranges ( $r > .9$ ) (170, 186) (Appendix 8). Note though that variability of outcome assumption was not met for both predictor and dependent variables (See Appendix 8), constraining data variability. This means that the score range did not include all values which would have produced greater variability (187). Finally, reviewing DFBeta statistics, Mahalanobis and Cook distances, and entered leverage values did not show potential bias in the model (Appendix 8).

**Table 3. Multicollinearity of Independent Variables**

	1.DIF	2.DDF	3.EOT	4.Sessions
1.	—	.685	.218	— .026
2.		—	.307	— .059
			—	— .164
				—

Note, EOT = External Oriented Thinking, DIF = Difficulty Identifying Feelings, DDF = Difficulty Describing Feelings.

### 3.2 Preliminary Analyses & T-tests

**Table 4. Means, standard deviations, Levene's tests, and significance testing for sex differences**

	Means (St. Deviations)		T-test	
	Male	Female	Levene's Test	Sig.
ATPPH	29.34 (5.27)	32.90 (4.34)	.002	.001
EOT	18.64 (3.83)	16.34 (4.12)	.341	.001
DIF	15.35 (5.52)	16.19 (5.75)	.450	.102
DDF	12.37 (3.77)	11.99 (4.19)	.111	.301

Note, ATPPH = Attitudes Towards Professional Psychological Help, EOT = External Oriented Thinking, DIF = Difficulty Identifying Feelings, DDF = Difficulty Describing Feelings.

A total of four independent t-test were conducted to compare sex differences in DIF, DDF, EOT, and ATPPH. Results showed a significant difference in EOT ( $t = 6.352, df = 531, p = .001 < .05$  two-tailed  $d = .57, Z_{score} = .57$ ), with female subjects scoring lower than male subjects. The estimated effects size

suggests that sex had a medium effect (188) on EOT. Interpreting  $Z_{scores}$  according to MacGraw and Wong (189) this means that a randomly selected participant with higher EOT would be male 64% at a time.

According to the Welch's t-test, there was also significant difference in ATPPH ( $t = -7.952, df = 527, p = .001 < .05$  two-tailed) with male participants having lower scores than female participants. However, Kolmogorov-Smirnov testing showed that both conditions ( $n_1 = .012, n_2 = .001$ ) deviated from normality (Appendix 8). Further non-parametric analysis confirmed that there was a statistically significant effect of sex on help-seeking attitudes (Mann-Whitney U ( $n_1 = 193; n_2 = 336$ ) = 19614.5,  $z = -7.584, p = .001$ , two tailed,  $d = .73$ ), with female subjects scoring higher than male subjects. According to Cohen (188), the estimated effect size displayed a near large effect of sex on ATPPH.

**Table 5. Means, standard deviations, Levene's testing, and significance testing for differences in participants with and without prior counselling contact**

	Means (St. Deviations)		T-test	
	Attended	Never Attended	Levene's Test	Sig.
ATPPH	34.14 (3.46)	29.60 (5.31)	.001	.001

Note, ATPPH = Attitudes Towards Professional Psychological Help

According to the Welch's t-test, there was also significant difference in ATPPH ( $t = 11.159, df = 539, p = .001 < .05$  two tailed) for people who have had prior contact having higher scores than people who had no prior contact. However, Kolmogorov-Smirnov testing showed that both conditions ( $n_1 = .001, n_2 = .001$ ) deviated from normality (Appendix 8). Non-parametric testing confirmed that that there was a statistically significant effect contact on help-seeking attitudes (Mann-Whitney U ( $n_1 = 221; n_2 = 320$ ) = 17474,  $z = -10.027, p = .001$ , two tailed  $d = .95$ ), with people without prior contact with counselling services scoring significantly lower on ATPPH. According to Cohen (188), prior utilisation had large effect on ATPPH.

### 3.3. Regression Analysis

A correlational design was used to examine if Alexithymia, as measured by EOT, DIF, and DDF, while also adding the total sum of undertaken sessions can predict ATPPH. Correlations between the variables are shown in table 5.

**Table 6. Pearson correlations coefficients (and significance levels) for the predictors and outcome variables**

	1.	2.	3.	4.	5.
1. ATPPH	—				
2. Sessions	.294 (.001)	—			
DIF	.013 (.386)	-.025 (.289)	—		
4. EOT	-.363 (.001)	-.164 (.001)	.212 (.001)	—	
5. DDF	-.111 (.006)	-.059 (.092)	.685 (.001)	.306 (.001)	—

Note: ATPPH = Attitudes Towards Professional Psychological Help, EOT = External Oriented Thinking, DIF = Difficulty Identifying Feelings, DDF = Difficulty Describing Feelings.

Data were extrapolated using a Multiple Linear Regression using the Enter Method, and examined the effect independent variables DIF, DDF, EOT, and Total Sum of Sessions on the dependent variable ATPPH. The enter method is indicative for theory testing (190) as the significance order of factors is not manipulated by the researcher (i.e. hierarchical), while enables comprehensive analysis of all factors without excluding them (i.e. stepwise) (170). A total of 514 participants formed the final sampling data set due to missing values.

The regression line displayed good fit predicting better than chance ( $F(4,509) = 642.994, p < .001$ ), while high significance indicates that the model can be generalised to other samples. Furthermore, 20.2 % ( $R^2 = 0.202, R^2_{Adj} = 0.196$ ) of the variance was explained by the independent variables, while the regression equation produced typical to high effect size ( $f^2 .253$ ) according to personality measurement guidelines (191), indicating that global alexithymia and sessions undertaken were significant predictors of ATPPH. This

also means that the model produced a 0.008 lapse of variance between the derived sample and population, indicating good cross-validity.

Specifically, there was a negative relationship between ATPPH and EOT, ( $t = -7.738, df = 513, p = .001$ ), with the model predicting that for each additional unit in EOT would result to -.390 decrease on ATPPH scores (*standardized  $\beta = -.326$* ). Furthermore, a slight but significant positive effect was detected for undertaken sessions ( $t = 5.927, df = 513, p = .001$ ) as each additional session increased ATPPH by .017 units (*standardized  $\beta = .238$* ). There was also a positive relationship for DIF ( $t = 2.982, df = 513, p = .003$ ) increasing ATPPH by .141 units (*standardized  $\beta = .162$* ). Overall, the results suggest that EOT was the most consistent predictor of ATPPH, overpassing both prior contact and DIF.

Separate regression analyses for male and female samples were applied to determine prospective pathway differences in the manifestation of help-seeking attitudes. All options and variables were entered and computed as with the general analysis.

**Table 7. Pearson correlations coefficients (and significance levels) for the predictors and outcome variables (men)**

	1.	2.	3.	4.	5.
1. ATPPH	—				
2. Sessions	.323 (.001)	—			
3. DIF	.000 (.499)	-.052 (.242)	—		
4. EOT	-.340 (.001)	-.202 (.003)	.170 (.001)	—	
5. DDF	-.006 (.465)	-.094 (.101)	.623 (.003)	.202 (.003)	—

Note: ATPPH = Attitudes Towards Professional Psychological Help, EOT = External Oriented Thinking, DIF = Difficulty Identifying Feelings, DDF = Difficulty Describing Feelings.

The second regression line consisting of men displayed good fit for predicting better than chance ( $F(10,789) = 230.001, p < .001$ ), as 19.2 % ( $R^2 = 0.192, R^2_{Adj} = 0.174$ ) of the

variance was explained by independent variables, a rate close to the main analysis. Similar to the main analysis, a negative relationship between ATPPH and EOT, ( $t = -4.398$ ,  $d = 4$ ,  $p = .001$ ) was detected, as the model predicted that for each additional unit in EOT would decrease ATPPH scores by  $-.399$  ( $standardized = -.305$ ). Additionally, a small but positive relationship was also observed for the number of undertaken sessions ( $t = -5.094$ ,  $df = 4$ ,  $p = .001$ ) as each session increased ATPPH by  $.015$  units ( $standardized \beta = .261$ ). Contrary though to the main analysis, the model predicted that DIF was not significant predictor of ATPPH ( $\beta = .154$ ,  $d = 4$ ,  $p = .877$ ) Finally, DDF was not statistically significant ( $t = .989$ ,  $df = 4$ ,  $p = .324$ ). The results suggest that men's attitudes are associated with the orientation of thinking and total number of partaken sessions.

**Table 8. Pearson correlations coefficients (and significance levels) for the predictors and outcome variables (women)**

	1.	2.	3.	4.	5.
1. ATPPH	-				
2. Sessions	.298 (.001)	-			
3. DIF	-.037 (.254)	-.054 (.165)	-		
4. EOT	-.294 (.001)	-.115 (.019)	.284 (.001)	-	
5. DDF	-.178 (.001)	-.101 (.035)	.721 (.001)	.368 (.001)	-

Note: ATPPH = Attitudes Towards Professional Psychological Help, EOT = External Oriented Thinking, DIF = Difficulty Identifying Feelings, DDF = Difficulty Describing Feelings.

The third regression model consisting of women also produced a significant model ( $F(17,350) = 295.816$ ,  $p < .001$ ) with good generalisability. 17.8 % ( $R^2 = 0.178$ ,  $R^2_{Adj} = 0.168$ ) of the variance was explained by the independent variables. Negative relationships between ATPPH and EOT ( $t = -4.481$ ,  $d = 4$ ,  $p = .001$ ) and DDF ( $t = -2.622$ ,  $d = 4$ ,  $p = .009$ ) were detected, with each additional unit in EOT and DDF resulting to  $-.271$  ( $standardized = -.245$ ) and  $-.211$  ( $standardized = -.198$ ) change on ATPPH scores respectively. Significant re-

sults were also reached for the remaining predictors number of sessions ( $t = 5.094$ ,  $d = 4$ ,  $p = .001$ ) and DIF ( $t = -2.594$ ,  $d = 4$ ,  $p = .01$ ), with both predicting an increase on ATPPH by  $.015$  units ( $standardized = -.261$ ) and  $.147$  ( $standardized = -.190$ ) respectively. These results suggest that men and women have different pathways to attitude formation, as women self-reported DDF and DIF are also associated with their ATPPH.

### 3.4. Bootstrapping and Confidence Intervals

Probability tests assess the possibility that the null hypothesis is true by setting a statistically acceptable gap of probability ( $p < 0.05 = 5\%$ ) for observed differences, meaning that it neglects to elucidate potential contributing-underlying factors (192). This also means that does not accurately interpret the magnitude of the effects, while also obtained normality may vary depending on the number of participants (193, 194). Therefore, a bootstrapping approach was conducted to determine 95% bias-corrected bootstrap CI for the independent variables' indirect effects (195). This method is empirically supported for determining statistical significance by providing asymmetric confidence limits by circumventing probability testing (196). The researcher created 2,000 bootstrap samples from the initial data set ( $N = 541$ ) by random sampling with replacement, that yielded 2,000 possible estimations of path coefficients.

It was estimated that 95% of CI suggested that EOT (CI =  $-.444$  to  $-.286$ ), prior experience as measured by undertaken sessions (CI =  $.228$  to  $.356$ ), and DIF (CI =  $-.072$  to  $.093$ ) indi-

**Table 9. Confidence intervals for B scores for predicting help-seeking attitudes towards professional psychological help**

	Lower Bound	Upper Bound
EOT	-.488	-.291
Sessions	.011	.023
DIF	.048	.233
DDF	-.263	.001

Note: EOT = External Oriented Thinking, DIF = Difficulty Identifying Feelings, DDF = Difficulty Describing Feelings.

rectly affected ATPPH and confirmed a direct pathway (182). 95% CI for Beta scores are also displayed below. However, it should be taken in account that percentile bootstrap CIs are grounded on empirical estimations of sampling distributions, and not on symmetrical normality meaning that it increases Type I errors rates (182, 197).

#### 4. Discussion

The present study provides evidence to suggest that alexithymic traits are associated with help-seeking attitudes, though contrary to the hypotheses separate alexithymic factors yielded independent patterns that manifested in different directions. In particular, by order of significance, increased levels of EOT had a negative association with help-seeking attitudes. A small effect was also detected for each additional undertaken session which predicted more favourable help-seeking attitudes. Contrary to expectations, the evidence suggests that lower ability to identify feelings predicted more positive help-seeking attitudes. There was no significant evidence to support that DDF is a potential contributor to the formation of help-seeking attitudes. Altogether, the regression model accounted for 20.2% of the total variance of help-seeking attitudes, while the effect size was in the medium to the large range as defined by Gignac and Szodorai (190). Finally, the analysis yields sex differences as men's attitudes were not predicted by DIF and DDF, whereas women's attitudes were predicted by all alexithymic facets.

Perhaps the most intriguing finding of this study is that when the direction of the thinking style is placed on external stimuli, rather than on internal emotions, people have less favourable attitudes towards counselling. Indeed, underutilisation of mental health services has been explained by higher EOT in clinical subjects (198). However, to the best of knowledge of the researcher, there are no comparable published findings on the grounds of ATPPH to critically discuss the data, as the study was the first to investigate help-seeking attitudes directly to alexithymic factors.

Recent research suggests that EOT may be viewed as a protective buffer from aversive events, by minimising the

affective involvement (through emotional decoupling that dampens baseline physiological arousal) (123, 124). Described as an avoidance approach, EOT processes increase vigilance towards external stimuli by distracting affective processing through decreased cognitive involvement (124). Thus, the evidence suggests that people with poor introspection skills, that resort to focusing on external stimuli, are more likely to have unfavourable attitudes towards counselling. Assumingly, by focusing on external reality people may overlook inner psychological disturbances, which could induce the very need to seek help (111, 112). In line with empirical findings that attitude alteration accounts for increased mental health utilisation (23, 27, 26, 27, 154), Löffler-Stastka, Bluemel and Boes (199) report that denial of psychotherapeutic utilisation is predicted by lower levels of introspective ability to detect psychological problems and to assume responsibility to resolve personal issues. This makes intuitive sense, as counselling involves self-reflection and emotional processing (200), so it may be plausible to deduce that EOT-prone people negatively view the prospect of help-seeking, as it would require to inverse their thinking direction, by invoking potentially unfamiliarised emotional content.

In an attempt to theoretically ground this observation, low felt attachment as measured by infant-mother emotional bonding predicts higher EOT scores (141). That is, it is proposed that low responsiveness to early attachment behaviours that are marked by emotional 'coldness' inhibit early emotional representation of their attachment figures and subsequently their emotional states (144). Therefore, the relationship between unfavourable help-seeking attitudes and high EOT, could be also explained by adult avoidant attachment patterns like conscious undervaluation of emotional processing (162). Note however that EOT may also be viewed as a culture-based form of thinking regarding the importance placed on emotional expression (100), such as in East Asian cultures (201), and thus the results may also represent a societal trend of decreased emotional introspection. In a nutshell, although a solid theoretical framework remains to be established regarding the underlying

processes of the direction of emotional processing, whether that being a deficit or a prevailing social tendency (as it did not account for potential confounding variables), it seems clear to infer that an introspective approach to emotional content fosters the ground to a positive view towards receiving counselling services, possibly due to increased emotional awareness and/or responsibility to acknowledge the need for help.

Contrary to the initial expectations, higher DIF predicted more positive help-seeking attitudes. This contradicts earlier findings about help-seeking intentions, although previous studies sampled adolescents and had a different scale for help-seeking attitudes (148, 149, 150), whereas this study consisted of adults. To configure this, higher DIF which is linked to the anxiety spectrum of attachment (141, 162) that predicts positive help-seeking intentions (92, 93) and health care utilisation (202). Therefore, in an indirect way the findings are in line with attachment theory, as preoccupied/anxious individuals are distinguished by their positive view of others and negative towards their self. This initial openness is probably mediated by positive help-seeking attitudes that incite anxious-driven people to seek treatment (91). As such, the findings indicate that people are attitudinally open to the prospect of counselling when they perceive their difficulty to identify their feelings (203). The distinction of *perceived* ability implies that a given individual is open to register the existence of stress, as TAS-20 facets DDF and DIF measure *self-perceived* ability to communicate emotions, whereas EOT measures observed emotional-behavioural preferences (147). Therefore, once accounting for potential ability to direct attention to inner affective processes, it may be postulated that the following risk factor that can lead to potentially prolonged treatment avoidance for people with negative help-seeking attitudes, is the inability to recognise unresolved/unfamiliar feelings. In sum, the interaction between EOT and DIF on ATPPH suggests that people who focus on their feelings and are eager to acknowledge existing psychological distress are attitudinally more open to the prospect of receiving psychological help.

Concerning the effect of prior utilisation of psychothera-

peutic agencies on help-seeking attitudes, the results –un-surprisingly– confirm previous studies (57, 203, 204). Specifically, correlations indicated that higher EOT predicted psychotherapeutic underutilisation, while increased sessions predicted a positive, yet small effect on ATPPH. Putting the findings into perspective, it seems that even when people are open to receive psychological treatment, high EOT remains a risk factor for potential drop-out, as both the therapist might experience the client as emotionally blunt or detached, thus arousing negative reactions (199). Indeed, alexithymia has been known to endanger both the quality of the therapeutic relationship (205, 206, 207), especially when mediating the therapist's view on the therapeutic alliance (208), and results into poorer therapeutic outcome as compared to control groups (209, 2010, 211, 212). This is plausible, as a limited introspective focus during counselling undermines its clinical effectiveness. A noticeable exception has been documented for cognitive behavioural therapy, possibly because it favours a concrete thinking style that shares with EOT mechanisms (213).

In relation to sex differences, there is evidence to suggest that help-seeking attitudes are formulated differently for men and women. Yet again, there are no comparable studies to critically discuss the relevance or accuracy of the data, although personality factors and expectations are known to explain sex differences (204). In detail, men's attitudes were solely predicted by higher EOT and the total amount of undertaken sessions, while the regression analysis for women extrapolated that all factors, that is including DIF and DDF, were conclusive to their help-seeking attitudes. The regression model suggested that if men focus on their emotions then they are more likely to have favourable views towards counselling, a finding that has been critically discussed above. However, in comparison to women perceived ability to detect feelings did to contribute to the model, indicating probably that men's perceptive ability to identify feelings is extraneous to help-seeking. The same case can be made for DDF. A tentative interpretation lies on the well-established findings that women experience more negative affect, as measured by neuroticism (214, 215), which in turn strongly

correlates with higher DIF and DDF (216, 217). The relationship is explained by intense subjective affective aversion, which deteriorates coping skills in relation to environmental stressors, and are thus manifested as exaggerated negative affect responses ('subjective misinterpretation') (118), a behaviour that is more likely to be observed in women (218). This finding is striking, as DIF and DDF scores for men and women significantly overlapped. Therefore, it can be proposed that women are more prone to have favourable attitudes towards help-seeking, possibly since they perceive the prospect of counselling, in response to stress, more favourably than men.

Women's pathways to help-seeking attitudes were predicted by DIF and DDF, possibly through the confounding factor of increased perceived negative affect. Since the findings are theoretically preliminary in nature, it should not be claimed that men do not exhibit difficulties with identifying or describing feelings, but instead discard counselling as a favourable option to cope. In conclusion, men's and women's pathways can be explained by differences in negative affect responsiveness.

#### 4.1 Theoretical and Practical Implications

The study's findings are theoretically informative to the practice of counselling services both in relation to therapeutic setting and early prevention policy. That is emotionally uninvolved individuals who are either willing or unwilling to utilise psychotherapeutic treatments are more likely to hold negative attitudes towards the practice of counselling.

In particular, given that help-seeking attitudes are correlated with appraisal of utility (30), it becomes pertinent for mental health practitioners to assess one's emotional responsiveness/readiness (as measured by EOT and DIF) prior to intervention or by adjusting their therapeutic strategy to the client's abilities in order to improve therapeutic effectiveness (219). In a similar manner, the findings can potentially enrich the underlying tenants of the Transtheoretical Model of Change (219). Specifically, it is proposed that for people in either a precontemplative or contemplative stage,

which are both distinguished by low readiness to assume responsibility to change (220), that their attitudes towards help-seeking may constitute an implicating sub-factor. Designating openness to professionalised help may, therefore, pose a separate facet of the theory. Most prominently, given the correlational magnitude of EOT over the number of undertaken sessions, it is suggested that treatment planning should be particularly tailored to the presenting emotional capabilities of the client during and before the initial psychotherapeutic stages. Otherwise, alexithymic clients are highly likely to underutilise mental health services. In order to establish tangible evidence, future research may investigate how help-seeking attitudes and alexithymia can predict the magnitude of the stage of change. Likewise, different clients may manifest different levels of readiness to engage in emotional processing, as Sanders (221) points out, counselling is not a ubiquitous solution to mental health treatment and alternative modalities should be considered before treatment allocation (i.e. medical prescription, occupational therapy, recreational activities etc.) in order to meet a client's specific needs. Taking additional steps to establish client literacy on mental health treatment beforehand, may provide a client with the scope to opt for a treatment tailored to their needs and emotional capabilities. Accordingly, it not hard to see why male subjects benefit better from informational rather than confrontational strategies (222) which may indicate initial reluctance to engage in affective processing. Likewise, there is evidence to suggest that highly alexithymic individuals may benefit more from writing interventions (223, 224, 225). Overall, the study delivers novel insights for the PWM model (152), by pinpointing cognitive-affective mechanisms that are directly relevant to the linear relationship between attitude to willingness to seek help, as emotional processes seem to have a shared role beside social prototypes of counselling, attitudes, willingness and intentions to seek help.

The results also give prominence to discrete emotional processes affecting help-seeking attitudes and should alert clinicians to the possibility that men and women may invariably seek help not only from through pathways but also

potentially due to different reasons (See 226, 227). Thus, by critically assessing and promptly acknowledging the individual's presenting needs this may strengthen the emerging therapeutic alliance. In a similar light, future scholars should consider the possibility that men display on average less favourable attitudes towards counselling due to sex differences in stress-related coping strategies. In particular, women on average apply more emotionally focused than men in stress coping (228, 229), which possibly favours preliminary help-seeking choices towards the emotionally focused process of counselling (230). As a result, it not hard to see why male subjects benefit better from informational rather than confrontation strategies (222). Considering that both sexes exhibit equal scores of avoidance coping (227), it is proposed that the differences in help-seeking attitudes are not solely attributable to men's perceived barriers (53) that could potentially be viewed as differences in coping preferences, but due to increased stressor exposure and appraisal in women (231). As such, it seems that the intensity and frequency of stress exposure seem to fit as a factor for increased help-seeking attitudes. Thus, sex differences in help-seeking attitudes could be mediated by differences in coping behaviours, meaning that practitioners will benefit their clients by providing up-to-date interventions that fit the coping styles of their clients. Liddon, Kinglerlee and Barry (232) report that although significant overlaps are observed, men significantly favour support groups, and conclude that male-friendly options are the exception to mental health services. It is therefore suggested that the theoretical frameworks of counselling and psychotherapy have to undergo revisions in both training and practical terms, so as to adequately adjust to the existing frame of coping styles, as sex differences in help-seeking may imply coping style differences.

Moreover, most of the research has been dedicated to understanding the causes of men's underutilising of help-seeking sources. This unipolar paradigm places research focus on microcosmic or macrocosmic masculine processes that are theorised to be endemic primarily in men (233). This study neither confirms or refutes these claims but points

to an alternative interpretation lying within the realm of sex differences in behavioural manifestations of emotional processes that are expressed in different choices paving the path to help-seeking. Constructivist paradigms may benefit by adapting their principal narrative that decreased help-seeking attitudes are attributable to socialised masculinity (i.e. male inexpressiveness) (234), by including shared a-theoretical aetiologies that could potentially explain the total variance of masculinities (235). That is, research does not only show that men and women marginally differ in emotional expression (236), but emotional inexpression (phenotypically observed in men) may represent an equally important adaptive mechanism (235) when considering that sole emotional behaviour is not indicative of psychological well-being (237). Indeed, a bio-psycho-sociological formulation seems to explain in higher resolution men's decreased help-seeking tendencies (238). In doing so, the data may equip psychoeducational and preventive programs targeted for the general public, with a clearer understanding of sex-differences in the help-seeking theorisation.

A final piece of note is that various researchers methodologically examine alexithymia by using TAS-20 total scores to draw inferences regarding alexithymic responses. This practice, however, appears to be problematic as this study demonstrated that alexithymia's facets act independently (103) by predicting independent patterns of help-seeking attitudes, and thus total scores may overlook interdisciplinary pathway differences.

#### *4.2 Strengths, Limitations & Future Directions*

Although this study produced a reasonably large sample, this study by no means constitutes a conclusive theorem. Therefore, additional studies should seek to confirm the interpretational meaning (239). In a manner of example, the sample had a large percentage of young people of higher academic background. This phenomenon is due to the fact that online snowball sampling methods attract participants with online resources that are potentially higher in the socio-economic stratum (240), and when examined, provides

an atypical overview of the psychological tendencies when compared to the general population (241). Thus, prospective studies should attempt to recruit homogenous samples. There was also a larger ratio of women to men, which may have resulted in reduced variability. Since women hold on average more favourable attitudes towards help-seeking, ironically, this can explain the fact that women were more willing to participate in this study as may have had held more interest in the topic, a phenomenon known as avidity bias (242). Although face-to-face sampling may be subject to social desirability effects that produce different outcomes as compared to online methods, especially in the context of answering sensitive questions, it remains the leading method for demographic and outcome reliability (243). Thus, the sampling methods and their pros/cons used in this study provided overlapped sampling strategy that aimed to provide a balanced overview (244).

Although this study is not bias-free, it should be stressed that the study met all major parametric criteria and thus the results provide significant insight into underlying mechanisms of help-seeking attitudes. However, potential distinct differences can be researched for clinical and non-clinical populations by detecting differences in alexithymic processes on help-seeking, while accounting for socio-ecological and gender contexts. In a manner of example, emotional expression of somatoform disorders has been found to be an impetus to help-seeking in Chinese Americans (15). Future studies can generate evidence by assessing how symptom response influences help-seeking in relation to specific ethnolinguistic groups (i.e. Greeks). Another point is that TAS-based studies garner self-reported alexithymia scores representing external information about cognitive-affective abilities, meaning that it does not directly assess psychological processes (185). Given that the concept of alexithymia converges with emotional introspection, future studies may measure physiological responses to isolate introspective affective components, since self-perceived measures are known to mismatch physiological reports (119, 245).

Similarly, future studies may also pursue to draft additional subjects that had prior contact with agencies other than

private therapists, since the majority had received counselling services by private therapists. Unravelling differences of treatment intensity (i.e. hospitalisation vs weekly session), as well as pre-treatment and post-treatment on help-seeking attitudes while controlling for alexithymia, may illuminate discrete longitudinal treatment effects on help-seeking attitudes.

Future studies should also control for neuroticism as this could determine comparatively to alexithymia concurring or hierarchical pathways in formulating help-seeking attitudes. Likewise, unravelling the relationship between pre-treatment expectations, alexithymia and help-seeking attitudes can also prove clinically informative. Positive expectations take the form of personal responsibility to invest and expecting a safe environment in the therapeutic process which strengthens positive help-seeking attitudes (204). Moreover, ATPPH scale is focused on counselling-based treatment help-seeking. Prospective studies can control for different modalities of treatment, which may shed light on different shades of help-seeking behaviours. This may explain in greater detail sex differences in help-seeking preferences. Pinpointing additional relationships may generate supplemental evidence of alexithymic effects on help-seeking attitudes. Mapping additional relationships may generate supplemental evidence of alexithymic effects on help-seeking attitudes.

Through the domain of cross-cultural differences, Shohet (246) argues that the perception of illness response is less ego-centred in shamanic cultures, placing the society's response as the source of help. Thus, of interest would also be to detect specific pre-treatment client needs that may highlight individual differences in the perception of the notion of 'help'. Finally, future research may also control for coping mechanisms and symptomatological deterrents (somato-morph vs emotional) with help-seeking attitudes and could potentially offer new insights on the affective-cognitive processes of help-seeking decision making and explain in greater resolution sex differences.

### 4.3 Conclusion

The study offers novel insights into the domain of help-seeking. That is, help-seeking attitudes have a fundamental basis on alexithymic traits that highlight concrete individual differences in the process of help-seeking behaviours. Moreover, men and women differ not only in help-seeking attitudes, but these differences are attributed to distinct mediating alexithymic processes. In conclusion, it is suggested that in addition to rational processes, help-seeking is influenced by instinctive choices that are partially explained by alexithymia.

### Abbreviations

attitudes towards professional psychological help 'ATPPH'  
 confidence intervals 'CI'  
 difficulty describing feelings 'DDF'  
 difficulty identifying feelings 'DIF'  
 externally oriented thinking 'EOT'  
 dual-process prototype/willingness model 'PWM'  
 variance inflation factor 'VIF'

### Acknowledgements

I wish to thank the people who provided me with immense support through the worst of times, that demonstrated unimaginable understanding when self-care was scarce, and never failed to believe in me and my cause.

Thank you, Mum and Dad.

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