Irrational Beliefs and Symptoms of General Anxiety Disorder among the General Population in Debrezeit, Ethiopia

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Abstract

The aim of the presented study was primarily to evaluate the relationship between total as well as specific types of irrational beliefs with respect to total and specific symptoms of General Anxiety disorder among the general population in Debrezeit town, Ethiopia. In collecting data, other than demographic profile, two instruments were used. The first is Irrational Beliefs Inventory (IBI) [1] that measures overall irrational beliefs as well as five types of irrational beliefs such as; worrying, rigidity, problem avoidance, need for approval, and emotional irresponsibility. The second instruments which was developed based on [2], tested for validity and reliability by the researcher were a structured questionnaire that can screen and rate symptoms of General Anxiety Disorder (i.e. total as well as characteristic symptoms of GAD). The study found out that there are significant and positive correlations between irrational beliefs and GAD symptoms. More specifically, the result of the presented study indicated that, the relationship between overall irrational beliefs (Total irrationality) and Total GAD symptoms is positive and significant. The findings of the study also indicated that the relationship between Total irrationality and the characteristics types of GAD symptoms such as (GAD-Apprehensive Expectation, GAD-Inability to control the worry, GAD-Major (Diagnostic) Symptoms, GAD-Impairment in daily activities) were all significant and in positive directions. Worrying and Problem Avoidance had significant positive correlation with Total-GAD Symptom as well as with all other characteristic types of GAD symptoms (i.e. GAD-Apprehensive Expectation, GAD-Inability to control the worry, GAD-Major (Diagnostic) Symptoms, GAD-Impairment in daily activities.

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Moreover**,** Rigidity (IBI-Rigidity) had significant positive correlations with majorities of GAD Symptoms such as GAD-Total symptom, GAD-Inability to control the worry, and GAD-Major (Diagnostic) Symptoms. However, Rigidity had no significant correlation with GAD-Apprehensive Expectation, and GAD-Impairment in daily activities. On the other hand, Need for Approval and Emotional Irresponsibility had no significant correlation with Total-GAD Symptom as well as with all other characteristic types of GAD symptoms (i.e. GAD-Apprehensive Expectation, GAD-Inability to control the worry, GAD-Major (Diagnostic) Symptoms, GAD-Impairment in daily activities.

1.   Introduction

The presented study was part of previously conducted study that was aimed at assessing the types and level of irrational beliefs in Ethiopian contest. The former study was conducted for the completion of my master's degree in psychology and was published as [3]. Hence, all data was collected during the time I was doing my master's degree. However, to minimize few variables so that my thesis would become more focused, I completely removed data related with General Anxiety disorder and only focused on assessing types and level of irrational beliefs with respect to some demographic variables. Hence, The main purpose of the previous study from which the presented study continued was to evaluate the types and level of irrational beliefs and their association with respondent's socio-demographic variable (like: age, sex, marital status, occupation like Students Vs. workers, educational attainment, income level and substance abuse as in: Khat chewing, cigarette, and alcohol) [3].

The presented study hence, analyses the relationship between irrational beliefs (total or overall and specific types irrational beliefs) with respect to symptoms of Generalized Anxiety Disorder. The part of the presented study specifically Generalized Anxiety Disorder and its relations with Irrational Beliefs were not included in the previous study. However, both data were collected at the same time. Hence the present study only focused on analyzing the correlation between total irrational beliefs as well as specific types of irrational beliefs (i.e. Worry, Rigidity, Problem avoidance, Need for approval, and Emotional irresponsibility) and total as well as characteristics types of GAD symptoms (i.e. Apprehensive Expectation, Inability to control the worry, Major (Diagnostic) Symptoms, Impairment in daily activities).

1.1.   *Background to the Study*

The prominent cognitive behavioral approaches as in Albert Ellis's rational emotive behavior therapy (REBT), Aaron T. Beck's cognitive therapy (CT) or cognitive behavioral therapy (CBT), and Donald Meichenbaum's cognitive behavior modification (CBM) all indicated that the very core of our emotional disturbance are rooted to our Irrational belief, cognitive distortion and maladaptive self-statements respectively [4]. When we see such thoughts or cognitive distortions, and self-statements, they all are related with our daily experience. Moreover, it is indicated in [5] that through time, these every day thoughts that had similar content for so long will eventually sinks down to the sub unconscious mind and remain there as Beliefs. It is of course these core beliefs that are

believed by many psychologies to be the triggers of our emotional responses. Hence, working on such beliefs is one of the pillars among the cognitive behavioral therapists.

Based on the above brief background information and the researcher's curiosity on the issue, this study was designed aiming to assess the relationship between irrational beliefs and symptoms of General Anxiety disorder.

Irrational beliefs according to Albert Ellis as indicated in [4] are; rigid, dogmatic, unhealthy, maladaptive, mostly comprised of demands, musts, and shoulds. To mention some examples: Everybody should be good; I must do well and win approval for all my preferences; others must treat me considerably and kindly, Conditions under which I live must be arranged so that I get practically everything I want comfortably, quickly, and easily [4].

In this study, total or overall irrational beliefs and the specific types of irrational beliefs (as in Worry, Rigidity, Problem avoidance, Need for approval and Emotional irresponsibility) were measured by Irrational Beliefs Inventory (IBI) [1].

REBT suggests that human beings defeat or 'disturb' themselves in two main ways: (1) by holding irrational beliefs about their 'self' i.e. Ego disturbance or (2) by holding irrational beliefs about their emotional or physical comfort i.e. Discomfort disturbance [6]. Ego disturbance according to [6] represents an upset to the self-image. It results from holding demands about one's 'self', e.g. 'I must … do well / not fail / get approval from others'; followed by negative self-evaluation such as: 'When I fail / get disapproval/ etc. this proves I am no good' and so on and hence these beliefs create 'ego anxiety'. Moreover, Discomfort disturbance results from demands about others (e.g. 'People must treat me right') and about the world (e.g. 'The circumstances under which I live must be the way I want') [6].

Generalized Anxiety Disorder (GAD) is a consistency of prolonged, vague, unexplained, but intense fears that do not seems to be attached to any particular object [2]. This includes (1) excessive anxiety and worry (apprehensive expectation) over a number of events or activities, (2) inability to control the worry, (3) the anxiety and worry is associated with three of the following six symptoms (these are; restlessness or feeling keyed up or on edge, being easily fatigued, difficulty in concentrating or mind going blank, irritability, muscle tension, sleep disturbance), (4)the focus of the anxiety and worry is not confined to feature of other Axis I disorders (E.g., panic attack, being embarrassed in public, being contaminated (as in Obsessive-Compulsive Disorder), being away from home or close relatives, gaining weight, having multiple physical complain or having a serious illness, and the anxiety and worry do not occur exclusively during Posttraumatic Stress Disorder), the anxiety, (5) worry or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning, and finally (6) the disturbance is not due to the direct physiological effect of a substance (e.g., a drug of abuse, a medication or a general medical condition) [2].

1.2.   *Justification to the Study*

As we can see in the above section, Generalized Anxiety Disorder (GAD) is a consistency of prolonged, vague, unexplained, but intense fears that do not seems to be attached to any particular object or the disturbance is not

due to the direct physiological effect of a substance (e.g., a drug of abuse, a medication or a general medical condition [2]. On the other hand, anxiety and over concern are unhealthy emotions, since they are based on irrational thinking or insane beliefs [4]. Likewise, it is also indicated in [7] that, person suffering from anxiety disorder; intrusive thoughts often takes the form of worry about possible future events and outcomes, or catastrophic interpretations of pasts events that emphasize the negative, especially with regard to mistakes an individual might have made. These findings implied that irrational beliefs are related with various symptoms of GAD. Based on this, the presented study was designed to assess, the correlation that implied to be existed between irrational beliefs (i.e. total as well as specific types of irrational beliefs) with GAD symptoms (i.e. total as well as characteristics types of GAD symptoms) among the general population in Debrezeit town, Ethiopia.

1.3.   Objectives of the Study
1.3.1.   General Objective

Generally the presented study aimed in assessing the relationship between irrational beliefs and GAD symptoms

1.3.2.   Specific Objective

Specifically the study assessed;

- The relationship between Total irrationality (IBI-total score) and Total GAD symptoms
- The relationship between Total irrationality and the characteristics types of GAD symptoms.
- The relationship between Specific types of irrational beliefs (i.e. Worry, Rigidity, Problem avoidance, Need for approval, and Emotional irresponsibility) and characteristics types of GAD symptoms (i.e. Apprehensive Expectation, Inability to Control the Worry, Major (Diagnostic) Symptoms, Impairment in Daily Activities).

1.4.   Hypothesis

The study formulated the following hypothesizes.

- There is significant correlation (relationship) between Total irrationality and Total GAD symptoms
- There are significant correlations (relationships) between Total irrationality and the characteristics types of GAD symptoms.
- There are significant correlations (relationships) between Specific types of irrational beliefs (i.e. Worry, Rigidity, Problem avoidance, Need for approval, and Emotional irresponsibility) and characteristics types of GAD symptoms (i.e. Apprehensive Expectation, Inability to control the worry, Major (Diagnostic) Symptoms, Impairment in daily activities).

1.5.   Delimitation of the study

The scope of the presented study is only delimited as follows.

- The study is a correlational study so that it is only delimited to assess the correlations between total as well as specific types of irrational beliefs with total as well as characteristic types of GAD symptoms
- The respondents of the study were students, teachers, and other workers of two government institution in Debrezeit, Ethiopia

1.6. Operational definition to the study

1.6.1. Worrying

According to [1], Worry in this study reflects thoughts or beliefs comprising of worry over possible misfortune and possible future accidents.

1.6.2. Rigidity

Rigidity in this study according to [1] indicates rigid thoughts and norms people hold for themselves and for others [1]. Based on this, a high score on rigidity (IBI-rigidity) reveals feelings of guilt and attribution of guilt, punishment and blame for mistakes, sins or deviations from strict values and norms.

1.6.3. Demand (Need) for approval

In this study demand for approval indicates thoughts about being in need for approval of others and reflects fear of not being accepted and respected by others or fear of failing in front of other people [1].

1.6.4. Problem avoidance

In this study problem avoidance based on [1] reflects irrational cognitions concerning making decisions, taking risks and taking responsibilities. Based on this, people who have a high score on this factor hold that it is easier to avoid difficulties and problems than to face them. These people hold that they are dependent on others with regard to taking decisions and risks.

1.6.5. Emotional Irresponsibility

In this study emotional irresponsibility based on [1] indicates assigning or ascribing emotions to external causes instead of to oneself or external attribution of emotion and feeling.

1.6.6. Generalized Anxiety Disorder (GAD)

Generalized Anxiety Disorder (GAD) as indicated in [2] is a consistency of prolonged, vague, unexplained, but intense fears that do not seems to be attached to any particular object.

Based on this, here below are the operational definitions (descriptions) of the Amharic version of Generalized Anxiety Disorder Symptoms Screening Scale and Subscales which was constructed based on [2] by the researched.

1.6.7.   Apprehensive expectations (Criteria A)

Apprehensive expectations in this study (Based on [2] in diagnosing GAD) refers to items measuring the individual's excessive anxiety and worry occurring more days than not for at list 6 months about a number of events or activities (such as work or school performance).

1.6.8.   Inability to control the worry (Criteria B)

Inability to control the worry in this study (Based on [2] in diagnosing GAD) refers to items measuring the individual's difficulty to control the worry. Criteria B in [2] for GAD indicate that the person finds it difficult to control the worry.

1.6.9.   Diagnostic symptoms (Criteria C)

Diagnostic symptoms in this study (Based on [2] in diagnosing GAD) refers to items measuring the individual's anxiety and worry with respect to the six major anxiety symptoms as listed in criteria C [2] for Generalized Anxiety Symptoms. Based on this, the anxiety and worry are associated with *three (or more) of the following six symptoms* (with at list some symptoms present for more days than not for the past 6 months) [2]. These are;

- Restlessness or feeling keyed up or on edge
- Being easily fatigued
- Difficulty concentrating or mind going blank
- Irritability
- Muscle tension
- Sleep disturbance (difficulty falling or staying asleep. Or restless unsatisfied sleep) judge

1.6.10.   Impairment in daily activity (Criteria E)

Impairment in daily activities in this study (Based on [2] in diagnosing GAD) refers to items measuring how much the individual is bothered by these symptoms in his/her social, occupational functioning. According to this, the anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

2.   Materials and Method
2.1.   *Study Design*

Correlational study was employed.

2.2.   *Study Area*

The study was conducted in two government institutions (Addis Ababa University Faculty of Veterinary

Medicine and National Veterinary Institution) in Debrezeit town, Ethiopia.

2.3.   Target Population and Study Participants

The respondents of the presented study from which samples were drawn were students, teachers, and nonacademic workers of two government institutions (Addis Ababa University Faculty of Veterinary Medicine and National Veterinary Institution) in Debrezeit town, Ethiopia.

2.4.   Sampling Techniques

The study used stratified random sampling.

2.5.   Sample Size

From the total of 482 students, 65 teachers, and 282 workers, 182 students, 23 teachers, and 115 workers were randomly selected.

2.6.   Tools (Instruments)
2.6.1.   Irrational Beliefs Inventory (IBI)

Irrational Beliefs Inventory (IBI) was developed by Petra C. Koopmans, Robbert Sanderman, Irma Timmerman and Paul M.G. Emmelkamp from the University of Groningen, the Netherlands [1]. Irrational Beliefs Inventory (IBI) is a 50 items instrument that measures irrationality and identifies five factors related with irrational beliefs [1]. These are Worrying, Rigidity, Need for approval, Problem avoidance, and Emotional Irresponsibility. The reliability of IBI subscales (range $\alpha = .70 - .85$) and the total IBI-50 scale ($\alpha = .85$) was reported as satisfactory [1]. Based on this, high scorer in IBI indicates irrationality. Translation and pilot testing of the English version of IBI instrument were made by [3]. According to this, the reliability of the Amharic translated version of IBI found to be 0.783 [3]. Moreover, This alpha value obtained on this pilot study were close to the original value suggested by [1] which ranges from $\alpha = .70$ to .85 for IBI subscales and for $\alpha = .85$ the total IBI-50 scale [3]. The respondent evaluates each of the 50 items in the Amharic translated version of IBI on a five-point (1–5) Likert-type scale, with 1 _ strongly disagree to 5 _ strongly agree [3]. The raw item scores were used in the statistical analyses.

2.6.2.   GAD symptoms screening scale

Amharic version of structured questionnaire that can screen and rate GAD symptoms among the general population in Debrezeit town, Ethiopia was constructed based on [2] by the researcher. In testing the validity of the Amharic version of GAD symptoms screening questionnaires, construct validity were checked. In this particular Amharic version of GAD symptoms screening scale/questionnaires all the six criteria for Generalized Anxiety Disorder as indicated in [2] have been included as subscales. However, four of the sub scales were measuring symptoms as Diagnostic Criteria A, B, C, and E for GAD in [2] and the other two sub scales i.e. criteria D and F were to differentiate these symptoms form other Axis I disorders (Criteria D) and from the

physiological effect of substance as well as general medical condition (i.e. criteria F) for GAD [2]. Hence, only the first four criteria indicated in [2] for GAD i.e. Criteria A, B, C, and E in were used in this Amharic version of GAD symptom screening scale. In this scale the 4 point Likert scaling were employed. In pilot testing the reliability of the total GAD symptoms scale had (α = .779). The following table summarizes the reliability statistics of the Amharic version of GAD symptoms screening scale.

Table 1: Reliability Statistics of GAD Symptoms screening Scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.779	.816	13

2.7. *Data Collection Procedure*

Informed consents were obtained from all participants. Participants were voluntary and no compensations were given. To collect the responded questionnaire, boxes were placed in the stuff cafeteria in both institutions and respondents were kindly told to drop their responded questioner in those boxes. This helped respondents to feel that their response will not be evaluated in person. For students group, questionnaires were administered in class room time at the beginning of the lecture hour and responded questionnaires were collected at the same time.

3. Result

3.1. *Demographic characteristics of respondents*

Table 2: Gender composition

Sex		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	92	28.8	31.0	31.0
	Male	205	64.1	69.0	100.0
	Total	297	92.8	100.0	
Missing		23	7.2		
Total		320	100.0		

As indicated in table 2, among the total 320 samples, 205 (63.1%) were male, 92 (28.8%), and the rest 23, (7.2%) were found to be missing for their gender.

Table 3: Age of respondents

Age		Age
N	Valid	308
	Missing	12
Mean		28.23
Median		25.00
Std. Deviation		9.536
Minimum		18
Maximum		58

Mean age of the study participants were 28.12 with standard deviation 9.536. The minimum and maximum ages were 18 and 58 respectively.

Table 4: Educational statuses of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below High School	15	4.7	4.8	4.8
	High School Completed	41	12.8	13.0	17.8
	Diploma	43	13.4	13.7	31.4
	1st Year Student	38	11.9	12.1	43.5
	2nd Year Student	37	11.6	11.7	55.2
	3rd Year Student	40	12.5	12.7	67.9
	5th Year Student	28	8.8	8.9	76.8
	6th Year Student	11	3.4	3.5	80.3
	Bachelor Degree Holders	24	7.5	7.6	87.9
	Msc Student	23	7.2	7.3	95.2
	Master's Degree Holder	2	.6	.6	95.9
	PHD Student	9	2.8	2.9	98.7
	PHD Holder	4	1.2	1.3	100.0
	Total	315	98.4	100.0	
Missing		5	1.6		
Total		320	100.0		

As one can see from table 4, the educational status of the study participants rages from below high school to PhD holders. More specifically, 15 (4.7%) were Below high school, 41 (12.8%) were only high school graduate, 43 (13.4%) were diploma holders, 38 (11.9%) 1st year students, 37 (11.6%) 2nd year students, 40 (12.5%), 3rd year students, 28 (8.8%) 5th year students, 11 (3.4%) 6th year students, 23 (7.5%) Master's degree students, 9 (2.8%) PhD Students, 24 (7.5%) Bachelor degree holders, 2 (0.6%) Masters degree holders, and finally 4 (1.2%) were PhD Holders.

3.2. Correlations between overall irrationality (Total irrational beliefs Inventory (IBI) score) and total as well as characteristic types of GAD symptoms

Table 5: Correlation between Total Irrational Beliefs (IBI-Total scores) and GAD Symptoms

		Total GAD symptom Score	Characteristics GAD Symptoms			
			Apprehensive Expectation	Inability to control worry	to Major the (Diagnostic) Symptoms	Impairment in daily activities
Total Irrational Beliefs Score	Pearson Correlation	.347**	.266**	.324**	.291**	.184**
	Sig. (2-tailed)	.000	.000	.000	.000	.001
	N	320	320	320	320	320

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

As table 5 depicted, the correlations of IBI-total score with total as well as characteristic symptoms of General Anxiety Disorder (GAD) were in the positive direction. Moreover, all correlations were significant at 0.01 level. More specifically, the correlations between IBI-Total score with Total GAD symptoms as well as other characteristic GAD symptoms such as IBI-Total vs. Total GAD Symptom (r = .347 p = .000), IBI-Total vs. Apprehensive Expectation (r = .266 p = .000), IBI-Total vs. Inability to control the worry (r = .324 p = .000), IBI-Total vs. Major (Diagnostic) Symptoms (r = .291 p = .000), IBI-Total vs. Impairment in daily activities (r = .184 p = .001) were all significant and in the positive directions. This indicates that as total irrationality increases, the overall symptoms of GAD symptoms as well as specific GAD symptoms were found to be increasing. This implies that irrational beliefs positively contributed for the development and/or maintenance of GAD symptoms.

3.3. Correlation between types of irrational beliefs and total as well as specific types of GAD symptoms
3.3.1. IBI-Worrying and GAD Symptoms

Table 6 shows that Worrying thought (IBI-Worrying) had positive and significant positive correlation with Total as well as characteristic types of GAD symptoms. More specifically, the correlations between IBI-Worrying vs.

Total GAD Symptom (r = .412 p = .000), IBI-Worrying vs. GAD-Apprehensive Expectation (r = .327 p = .000), IBI-Worrying vs.

Table 6: Correlations between specific types of irrational beliefs and GAD symptoms

Types of Irrational Beliefs		Total and Characteristics GAD Symptoms				
		Apprehensive Expectation	Inability to control worry	Major the (Diagnostic) Symptoms	Impairment in daily activities	Total GAD symptom
IBI-Worrying	Pearson Correlation	.327**	.362**	.336**	.283**	.412**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	320	320	320	320	320
IBI-Rigidity	Pearson Correlation	.106	.146**	.115*	.062	.139*
	Sig. (2-tailed)	.058	.009	.040	.270	.013
	N	320	320	320	320	320
IBI-Problem Avoidance	Pearson Correlation	.238**	.283**	.201**	.113*	.264**
	Sig. (2-tailed)	.000	.000	.000	.044	.000
	N	320	320	320	320	320
IBI-Demand for Approval	Pearson Correlation	.059	.105	.079	.070	.096
	Sig. (2-tailed)	.291	.060	.157	.209	.086
	N	320	320	320	320	320
IBI-Emotional Irresponsibility	Pearson Correlation	-.022	-.031	.074	-.043	.030
	Sig. (2-tailed)	.699	.586	.189	.444	.589
	N	320	320	320	320	320

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

GAD-Inability to control the worry (r = .362 p = .000), IBI-Worrying vs. GAD-Major (Diagnostic) Symptoms (r = .336 p = .000), IBI-Worrying vs. GAD-Impairment in daily activities (r = .283 p = .001) were all significant and in the positive direction. This indicates that worrying thought positively contributed for all types of GAD symptoms.

3.3.2.   IBI-Rigidity and GAD Symptoms

When we see the relation between Rigidity (IBI-Rigidity) with GAD Symptoms, except IBI-Rigidity vs. GAD-Apprehensive Expectation (r = .106 p = .058), and IBI-Rigidity vs. GAD-Impairment in daily activities (r = .062 p = .270), the rest correlations such as IBI-Rigidity vs. GAD-Inability to control the worry (r = .146 p = .009), IBI-Rigidity vs. GAD-Major (Diagnostic) Symptoms (r = .115 p = .040), and IBI-Rigidity vs. GAD-Total symptom (r = .139 p = .013), had significant positive correlations with Total GAD symptom, Inability to control the worry, .and Major (Diagnostic) GAD Symptoms.

3.3.3.   IBI-Problem Avoidance and GAD Symptoms

Table 6 also indicated that Problem Avoidance thought (IBI-Problem Avoidance) had significant positive correlation with Total as well as all other characteristic types of GAD symptoms. More specifically, the correlations between IBI-Problem Avoidance vs. GAD-Total Symptom (r = .264 p = .000), IBI-Problem Avoidance vs. GAD-Apprehensive Expectation (r = .238 p = .000), IBI-Problem Avoidance vs. GAD-Inability to control the worry (r = .283 p = .000), IBI-Problem Avoidance vs. GAD-Major (Diagnostic) Symptoms (r = .201 p = .000), IBI-Problem Avoidance vs. GAD-Impairment in daily activities (r = .113 p = .044) were also significant and in the positive direction. This indicates that IBI-Problem Avoidance type of irrational beliefs positively contributed for all types of GAD symptoms.

3.3.4.   IBI-Need for Approval and GAD Symptoms

IBI-Need for Approval had positive correlations but the correlations were not significant with Total as well as all other characteristic types of symptoms of GAD (IBI-Need for Approval vs. GAD-Total Symptom (r = .096 p = .086), IBI-Need for Approval vs. GAD-Apprehensive Expectation (r = .059 p = .291), IBI-Need for Approval vs. GAD-Inability to control the worry (r = .105 p = .060), IBI-Need for Approval vs. GAD-Major (Diagnostic) Symptoms (r = .079 p = .157), IBI-Need for Approval vs. GAD-Impairment in daily activities (r = .070 p = .209)).

3.3.5.   IBI-Emotional Irresponsibility and GAD Symptoms

Similarly, IBI-Emotional Irresponsibility had no significant correlations with Total as well as all other characteristic types of GAD symptoms (IBI-Emotional Irresponsibility vs. GAD-Total Symptom (r = .030 p = .589), IBI-Emotional Irresponsibility vs. GAD-Apprehensive Expectation (r = .-022 p = .699), IBI-Emotional Irresponsibility vs. GAD-Inability to control the worry (r = .-031 p = .568), IBI-Emotional Irresponsibility vs. GAD-Major (Diagnostic) Symptoms (r = .074 p = .189), IBI-Emotional Irresponsibility vs. GAD-Impairment in daily activities (r = .-043 p = .444)).

4.   Conclusion (Summary, Discussions, Conclusion, Recommendations)

4.1.   Summary

The aim of the present study was primarily to evaluate the relationship between total as well as specific types of irrational beliefs with total and specific symptoms of General Anxiety disorder among the general population in Debrezeit town, Ethiopia.

In order to see the relationship between total as well as specific types of irrational beliefs with total and specific symptoms of General Anxiety disorder, from the total population (N=829) (i.e. 482 students, 65 teachers, and 282 other workers), 182 students, 23 teachers, and 115 workers (n=320 sample) were randomly drawn and participated in the study.

In collecting data, other than demographic profile, two instruments were used. The first is Irrational Beliefs Inventory (IBI) which measures overall irrational beliefs as well as five types of irrational beliefs such as; IBI-worrying, IBI-rigidity, IBI-problem avoidance, IBI-need for approval, and IBI-emotional irresponsibility. The second instruments which was developed based on [2], tested for validity and reliability by the researcher were a structured questionnaire that can screen and rate GAD symptoms (i.e. total as well as characteristic) GAD symptoms.

The result of the presented study indicated that, IBI-Total (irrationality as a whole) had significant positive correlation with overall GAD Symptoms (i.e. GAD-Total Symptom (r = .347 p = .000), as well as with the other specific and characteristic types of GAD symptoms such as GAD-Apprehensive Expectation (r = .266 p = .000), GAD-Inability to control the worry (r = .324 p = .000), GAD-Major (Diagnostic) Symptoms (r = .291 p = .000), GAD-Impairment in daily activities (r = .184 p = .001).

4.1.1.   Worrying and GAD symptoms

Worrying thoughts (IBI-Worrying) had significant positive correlation with Total-GAD Symptom (r = .412 p = .000)) as well as with all other characteristic types of GAD symptoms (i.e. GAD-Apprehensive Expectation (r = .327 p = .000), GAD-Inability to control the worry (r = .362 p = .000), GAD-Major (Diagnostic) Symptoms (r = .336 p = .000), GAD-Impairment in daily activities (r = .283 p = .001).

4.1.2.   Problem Avoidance and GAD symptoms

IBI-Problem Avoidance had significant positive correlation with the total as well as all other characteristic types of GAD symptoms (i.e. GAD-Total Symptom (r = .264 p = .000), GAD-Apprehensive Expectation (r = .238 p = .000), GAD-Inability to control the worry (r = .283 p = .000), GAD-Major (Diagnostic) Symptoms (r = .201 p = .000), GAD-Impairment in daily activities (r = .113 p = .044).

4.1.3.   Rigidity and GAD symptoms

IBI-Rigidity had significant positive correlations with majorities of GAD Symptoms such as GAD-Total

symptom (r = .139 p = .013), GAD-Inability to control the worry (r = .146 p = .009), and GAD-Major (Diagnostic) Symptoms (r = .115 p = .040). This shows that correlation between GAD-Apprehensive Expectation (r = .106 p = .058), and GAD-Impairment in daily activities (r = .062 p = .270) were not significant with IBI-Rigidity.

4.1.4. Need for Approval and GAD symptoms

IBI-Need for Approval had no significant correlation with the total as well as with all other characteristic types of GAD symptoms (i.e. GAD-Total Symptom (r = .096 p = .086), GAD-Apprehensive Expectation (r = .059 p = .291), GAD-Inability to control the worry (r = .105 p = .060), GAD-Major (Diagnostic) Symptoms (r = .079 p = .157), GAD-Impairment in daily activities (r = .070 p = .209)). However, the correlations were in positive direction.

4.1.5. Emotional Irresponsibility and GAD symptoms

IBI-Emotional Irresponsibility Similarly with need for approval had no significant correlations with the total (GAD-Total Symptom (r = .030 p = .589)) as well as with all other characteristic types of GAD symptoms (i.e., GAD-Apprehensive Expectation (r = .-022 p = .699), GAD-Inability to control the worry (r = .-031 p = .568), GAD-Major (Diagnostic) Symptoms (r = .074 p = .189), GAD-Impairment in daily activities (r = .-043 p = .444)).

4.2. Discussions

4.2.1. Total/Overall irrational beliefs (IBI-Total) and Total as well as specific GAD Symptoms

The result of the presented study indicated that, IBI-Total (overall irrationality) had significant positive correlation with total or overall GAD Symptoms (GAD-Total Symptom (r = .347 p = .000), as well as with the other specific and characteristic types of GAD symptoms such as with; GAD-Apprehensive Expectation (r = .266 p = .000), GAD-Inability to control the worry (r = .324 p = .000), GAD-Major (Diagnostic) Symptoms (r = .291 p = .000), GAD-Impairment in daily activities (r = .184 p = .001). This indicates that the cumulative effect of the five types of irrational beliefs (i.e. Worrying, Rigidity, Problem avoidance, Need for approval, and emotional irresponsibility) which is considered in this study as total irrational belief (irrationality) were contributing positively for all GAD symptoms to increase. This implies that irrational beliefs could enhance Anxiety symptoms. This implication was supported and indicates by [4] that, anxiety and over concern are unhealthy emotions, since they are based on irrational thinking or insane beliefs. Moreover, it is also indicated in [6] that, human beings defeat or 'disturb' themselves in two main ways: (1) by holding irrational beliefs about their 'self' or (2) by holding irrational beliefs about their emotional or physical comfort.

4.2.2. Types of irrational beliefs and GAD symptoms
4.2.2.1. Worrying and GAD symptoms

Worrying type of irrational beliefs had significant positive correlation with Total-GAD Symptom (r = .412 p =

.000)) as well as all other characteristic types of GAD symptoms (i.e. GAD-Apprehensive Expectation (r = .327 p = .000), GAD-Inability to control the worry (r = .362 p = .000), GAD-Major (Diagnostic) Symptoms (r = .336 p = .000), GAD-Impairment in daily activities (r = .283 p = .001). this indicates that people who are worrying over possible misfortune and possible future accidents are likely to experience; Excessive anxiety and worry, difficulty to control their worry, other anxiety symptoms such as; Restlessness, Being easily fatigued, Difficulty concentrating or Irritability, Muscle tension, Sleep disturbance, and finally being bothered by these symptoms in his/her social, occupational functioning.

4.2.2.2. Problem Avoidance and GAD symptoms

IBI-Problem Avoidance had significant positive correlation with the total as well as all other characteristic types of GAD symptoms (i.e. GAD-Total Symptom (r = .264 p = .000), GAD-Apprehensive Expectation (r = .238 p = .000), GAD-Inability to control the worry (r = .283 p = .000), GAD-Major (Diagnostic) Symptoms (r = .201 p = .000), GAD-Impairment in daily activities (r = .113 p = .044). This indicates that, Problem avoidant people 'i.e. those who have difficulty in making decisions, taking risks and taking responsibilities and based on this who avoid difficulties and problems than to face them' have very high tendency to experience Excessive anxiety and worry, difficulty to control the these worries, other anxiety symptoms such as; Restlessness, Being easily fatigued, Difficulty concentrating or Irritability, Muscle tension, Sleep disturbance, and finally being bothered by these symptoms in his/her social, occupational functioning.

4.2.2.3. Rigidity and GAD symptoms

IBI-Rigidity had significant positive correlations with GAD-Total symptom (r = .139 p = .013), GAD-Inability to control the worry (r = .146 p = .009), and GAD-Major (Diagnostic) Symptoms (r = .115 p = .040). Based on this, it can be implied that people who hold rigid thoughts and norms for themselves and for others had strong tendency to contract difficulty in controlling worries, and other anxiety symptoms such as; Restlessness, Being easily fatigued, Difficulty concentrating or Irritability, Muscle tension, Sleep disturbance.

4.2.2.4. Need for Approval, Emotional Irresponsibility and GAD symptoms

People with Need for approval or thoughts about being in need for approval of others or those reflects fear of not being accepted or respected by others or those who usually had fear of failing in front of other people, and People with Emotional Irresponsibility i.e. those who usually are assigning or ascribing emotions to external causes instead of to oneself had no significant correlation with the total as well as with all other characteristic types of GAD symptoms. This may tell that such types of irrational beliefs might not contribute significantly for the development or maintenance of GAD symptoms. However, the researcher recommends further and in-depth study.

4.3. Conclusions

The general objective of the study was to assess the relationship between irrational beliefs and GAD symptoms. Moreover, the study also had the following specific objectives. This includes assessing:

- The relationship between Total irrationality and Total GAD symptoms
- The relationship between Total irrationality and the characteristics types of GAD symptoms.
- The relationship between Specific types of irrational beliefs (i.e. Worry, Rigidity, Problem avoidance, Need for approval, and Emotional irresponsibility) and characteristics types of GAD symptoms (i.e. Apprehensive Expectation, Inability to control the worry, Major (Diagnostic) Symptoms, Impairment in daily activities).

Based on this, the study found out that there are significant and positive correlations between irrational beliefs and GAD symptoms. More specifically, the result of the presented study indicated that, the relationship between Total irrational beliefs (Total irrationality) and Total GAD symptoms is positive and significant. The findings also indicated that the relationship between Total irrationality and the characteristics types of GAD symptoms such as (GAD-Apprehensive Expectation, GAD-Inability to control the worry, GAD-Major (Diagnostic) Symptoms, GAD-Impairment in daily activities) were all significant and in positive directions. When we come to relationship between Specific types of irrational beliefs (i.e. Worry, Rigidity, Problem avoidance, Need for approval, and Emotional irresponsibility) and characteristics types of GAD symptoms (i.e. Apprehensive Expectation, Inability to control the worry, Major (Diagnostic) Symptoms, Impairment in daily activities), the presented study concluded the findings as follows. Worrying and Problem Avoidance had significant positive correlation with Total-GAD Symptom as well as with all other characteristic types of GAD symptoms (i.e. GAD-Apprehensive Expectation, GAD-Inability to control the worry, GAD-Major (Diagnostic) Symptoms, GAD-Impairment in daily activities. Moreover, Rigidity (IBI-Rigidity) had significant positive correlations with majorities of GAD Symptoms such as GAD-Total symptom, GAD-Inability to control the worry, and GAD-Major (Diagnostic) Symptoms. However, Rigidity had no significant correlation with GAD-Apprehensive Expectation, and GAD-Impairment in daily activities. On the other hand, Need for Approval and Emotional Irresponsibility had no significant correlation with Total-GAD Symptom as well as with all other characteristic types of GAD symptoms (i.e. GAD-Apprehensive Expectation, GAD-Inability to control the worry, GAD-Major (Diagnostic) Symptoms, GAD-Impairment in daily activities.

4.4. Recommendations

Based on the conclusions given above the study recommend the following

- Briefs psycho-education program should be designed at school or institutional levels aiming to teach students and workers regarding how beliefs system and emotional responses would influence to each other!
- Cognitive restructuring training in a way that people could identify and challenge their irrational beliefs should be designed and implemented either in academic as well as at work institutional levels!
- School and work place administrators should consider how irrationality affects emotional health so that they should facilitate and advocates the above recommended psycho-education and training program.
- Finally, the researcher recommend further research to be conducted in either validating, elaborating, as well as criticizing the current study findings in more controlled environment so that the effect of irrational beliefs on people's psychological health as well as academic as well as work related performances would

be elaborated more!

Acknowledgements

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