The Contribution of Cognitive Distortions in Predicting Achievement Motivation among Grade 11th Students in Al Sharqiyah North Governorate, Sultanate of Oman

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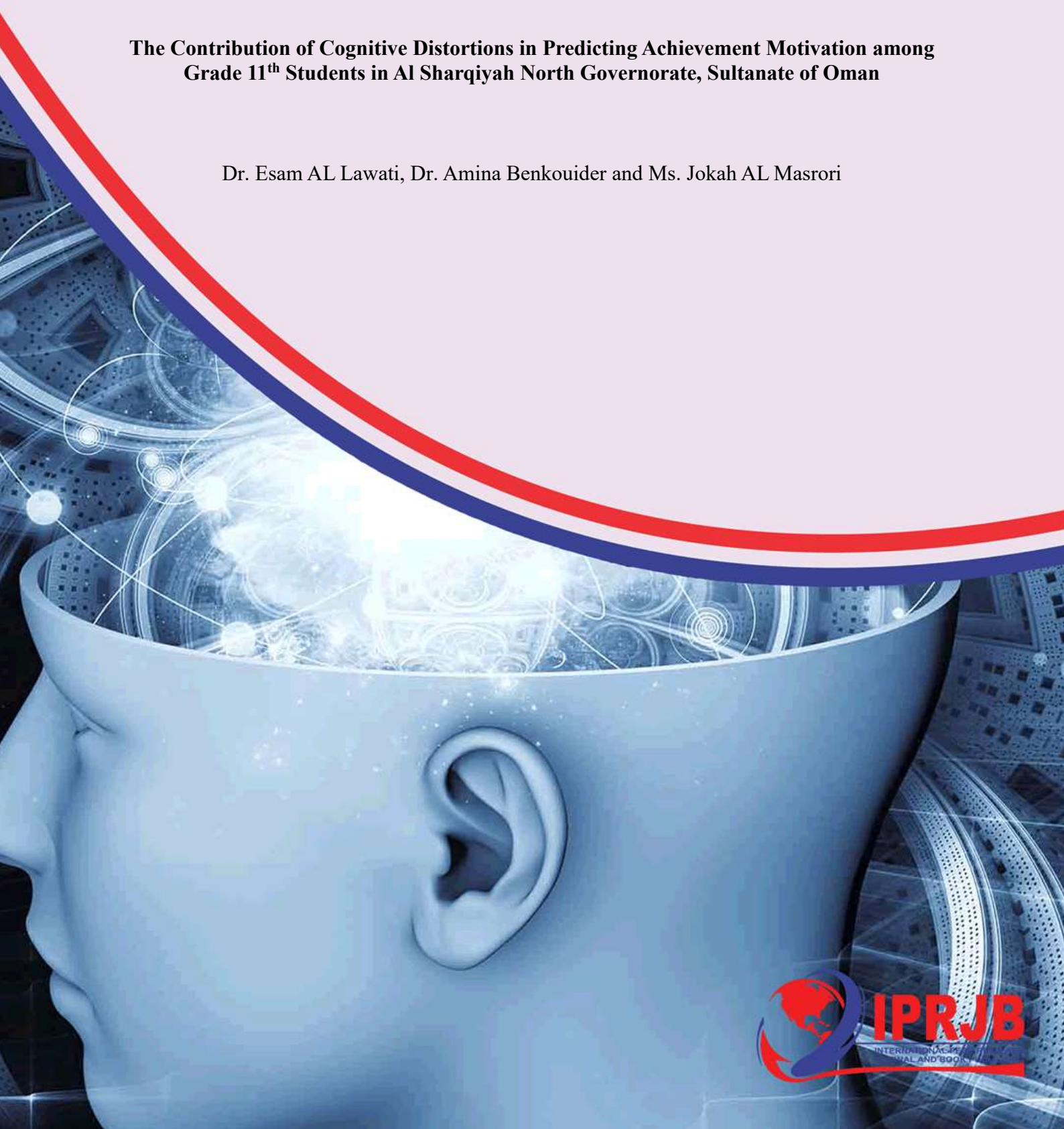
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Abstract

Purpose: The Contribution of Cognitive Distortions in predicting achievement motivation among Grade 11th Students in Al Sharqiyah North Governorate in the Sultanate of Oman is to determine the extent to which cognitive distortions predict achievement motivation among eleventh-grade students in North Al Sharqiyah Governorate in the Sultanate of Oman.

Methodology: This is accomplished by determining students' levels of cognitive distortions and achievement motivation, and then investigating the straightforward linear link between cognitive distortions and accomplishment motivation. In addition to demonstrating statistically significant variations in cognitive distortions and levels of achievement motivation based on gender and academic specialty. The study sample consisted of (404) grade 11 students enrolled in public schools in the Sultanate of Oman's North Al Sharqiyah schools during the academic year 2021/2022 AD. The Achievement Motivation Scale for Children and Adults by Harmans (1987), and the Cognitive Distortions Scale created by Saladin (2015).

Results: The researchers have found the significance level of the regression model is less than 0.05, and they are statistically significant, hence the model has statistical significance and can predict the relationship between cognitive distortions and achievement motivation. The result also indicates that no differences in the level of cognitive distortions as a whole depending on the gender variable, in addition, the result shows that the cognitive structures that the individual builds about himself/herself and the world are not affected by the type of specialization that student's study. The result indicates that the achievement motivation of the sample members is not affected by gender as well as the difference in the academic specialization of the student's study.

Unique Contribution to Theory, Practice and Policy: The study recommended several significant recommendations: focusing on psychological counselling for students, regardless of their gender and cognitive levels, as well as introducing group counselling programs that work to improve the motivation to achieve and target cognitive distortions, and finally, conducting more research on the study variables.

Keywords: *Cognitive Distortions, Achievement Motivation, Eleventh-Grade Students*

INTRODUCTION

According to cognitive psychologists, people's beliefs have unique meanings and how they perceive circumstances, and the quality of their subjective experiences influences how they feel and behave (John, 2015/2016). This was supported by Zhang's (2008) research, in which he highlighted the detrimental effects of cognitive distortions on students' feeling of self-control and how these distortions play a significant part in psychological defense mechanisms that influence the student's academic performance.

One of the notions of Beck's cognitive theory is referred to as cognitive distortions, which are incorrect interpretations of circumstances that do not reflect the reality of the situation. According to Beck, automatic thoughts are kinds of encoding and comprise the cognitive structure together with intermediate beliefs and established beliefs. Cognitive distortions result from the interaction between automatic thoughts and the development of cognitive schemas, as well as from people's views of themself and their environment, and the possibility that these notions might develop into well-established beliefs. (Rawi, 2021). Aaron Beck (1995) defines cognitive distortions as the cognitive structures and formulas that an individual believes about himself/herself, his/her world, and his/her future by exaggerating the negatives and minimizing the positives, excessive generalizations, anticipating disasters, personalization and self-blame, exaggerating standards, random conclusions, and selective abstractions that affect the individual's cognitive formation. Meanwhile, Palacios Garay et al. (2020) define cognitive distortions as fictitious and unreal notions that students believe it is faultless and completely convinced of. Still, they do not match reality, resulting in disturbed behaviors and emotions. Kosheleva (2021) indicates that cognitive distortions represent a complex structure based on the student's beliefs and the generation of automatic thoughts and behavioral patterns in certain circumstances that occur through the student's interaction with the surrounding reality. Radwan and Abu Ubadah (2002) discussed the concept of cognitive distortions as one of the manifestations of disorder in thinking that leads to difficulty in controlling the consequences of situations, a false perception of reality, thinking about the existence of relationships that cannot exist, and the existence of negative thoughts about the self.

The researchers Buğa & Kaya (2022) highlighted the extent to which cognitive distortions are associated with academic success, which is one of the research variables. The results of their study showed that there was no association attributed to the student's gender or educational level.

The drive for accomplishment is visible as one of the most significant factors that inspires the student to learn and succeed (Yousfi, 2017). Students are expected to learn, seek science, and attempt to improve themselves scientifically. Achievement motivation is defined as the desire for improvement, development, and the pursuit of excellence from the individual's perspective and manifests through activity, according to the Encyclopedia of Psychology (Weiner, 2000). Motivation is thought of as the internal states that increase an individual's activity and effort to achieve and reach success (Al-Khalidi, 2003). aimed at obtaining a feeling of contentment and sufficiency. Additionally, evidence suggests that people have fairly consistent personality traits that influence how hard they work and how long they persist in trying to fulfil their wants when such scenarios involve performance appraisal (Al-Qani, 2020). As a result of his wants and ideas, which in turn are influenced by the cultural positions to which he belongs, an individual's motivation is influenced by the values, beliefs, and ideas that he believes. He either has good

views that motivate him inwardly and encourage him to work hard, or he has unfavorable beliefs that prevent him from succeeding (Al-Juhani, 2014). According to the findings of Shehadeh's study (2012), which showed the existence of statistically significant differences in the level of achievement motivation attributable to the effect of gender in favor of females, the difference in the levels of individuals' motivation for achievement can be explained through several variables, such as differences in demographic variables. The study by Awan et al (2011), which found a positive association between accomplishment motivation and self-concept, demonstrated that the variation in degrees of motivation may be interpreted through self-concept.

Several studies have addressed the concept of cognitive distortions and their relationship with various variables. Among these studies is the study of Al-Qaraleh (2018), which addressed the relationship between cognitive distortions and using social media. Another study conducted by Shandoukh (2019), addressed the effect of cognitive restructuring and re-formulating methods on cognitive distortion among school students, while a study conducted by Al-Jarrah & Al-Momani (2020) addressed the identification of the level of cognitive distortions among university students. Ahmet Akin (2010) conducted a study that aimed to examine the relationship between self-compassion and cognitive distortion. All the studies referred to address the relationship of cognitive distortions with different variables, but these studies did not address the relationship of cognitive distortions to predicting achievement motivation among high school students which is considered a main objective of the current study, and the results of the study will add an important contribution to the field of educational psychology.

The Explanatory Theory of Cognitive Distortions

Aaron Beck is considered a pioneer of cognitive theory, as the theory is based on the information processing model, which assumes that individuals' thinking becomes more distorted when they go through negative psychological experiences, judgments become absolute and excessively generalized, and the individual's basic beliefs about himself and the world become fixed. In normal cases, individuals check their impressions or self-judgments to obtain clear information, while individuals who have gone through a bad emotional experience develop a fixed and overly generalized mental bias that leads to distortion of the information received. Therefore, distorted thinking is behind most psychological disorders and is often the result of maladaptive beliefs that are activated during negative emotional experiences (Ledley et al., 2010).

According to cognitive theory, individuals' beliefs begin to form during early childhood and then grow throughout life. The individual forms his/her basic beliefs about himself/herself and the world through early childhood experiences. These beliefs may be represented in positive beliefs such as: (loved, competent, and capable) or they may develop false and negative beliefs such as: (hated, worthless, and incompetent). Then these beliefs become basic for the individual, upon which false cognitive structures are built. Then the main cognitive structures (Schemas) - which were formed since childhood - become vulnerable to distortion (Alaa El-Din, 2013). Therefore, the cognitive processes that support the cognitive structures reflect the early errors in thinking or distorted ideas that Aaron Beck called cognitive distortions. Beck also indicated that these distortions appear when the cognitive processing and production processes are inaccurate (Ledley et al., 2010).

Cognitive theory assumes that our perceptions are derived from cognitive schemas that have developed throughout our life experiences and that these schemas guide our perceptions of ourselves, others, and the world around us. If the schemas are distorted, they generate distorted perceptions, which predispose the individual to experiencing emotional distress. Cognitive therapy is based on this principle—the way we represent the world cognitively largely determines how we feel and behave—and thus modifying distorted perceptions and associated beliefs and biases in information processing will reduce vulnerability to disorders. (Dobson and Dobson, 2009).

Statement of the Problem

The eleventh grade is a crucial one since it serves as a foundation for students to choose their future paths and then develops them to make significant contributions to the scientific and professional worlds. Additionally, because it is influenced by the traits of this unstable developmental and psychological stage, as well as the demands and aspirations it includes, this category is included in the adolescence stage. Additionally, the knowledge the student receives has an impact on his internal elements (his thoughts and feelings), leading to specific behaviors and responses. As a result, the person relies on his prior experiences and cognitive conclusions, whether logical or distorted, to perceive various situations and construct an appropriate response, and as soon as the situation is based on a cognitively distorted experience, this creates irrational responses and negative judgments (Abu Hilal, 2018). Beck anticipated that these distorted cognitive processes might predict maladaptive emotions and hence impact emotions, reactions, and consequent behavior (Rosenfield, 2004). This distorted cognition may lead to adaptive issues and worse perceptions of quality of life. Additionally, according to Rawi (2021), these distortions have an impact on students' academic resilience and psychological health, demonstrating how these students' psychological well-being is related to the false beliefs they have.

The pursuit of achievement, effort, and perseverance to reach one's goals are all influenced by one's knowledge (ideas and culture), and as a result, the achievement motivation—the internal engine that propels the learner to learn and achieve—is also impacted (Al-Juhani, 2014). According to Yousfi (2017), motivation for achievement is the energy that stems from a person's wants and guides behavior toward the accomplishment of the goal that satisfies the motivation. Awan and his colleagues in their study which are conducted in 2011, demonstrated a positive association between achievement motivation, self-concept, and accomplishment as well as statistically significant differences attributable to the gender variable in favor of females, corroborated this. It is obvious from what has been explained previously that the variable of cognitive distortions is connected to accomplishment motivation, but (to the researchers' knowledge) the relationship has not received enough local investigation.

Due to their work as teachers or counselors and their interactions with students, researchers in the field of education have seen that certain students exhibit some disordered thinking patterns, which are thought to impact their desire for academic accomplishment. Therefore, the researchers were interested in examining the connection between students' unique achievement drive and the variable of cognitive distortions. The following questions were the concentration of the study's secondary stage and issue: What is the level of cognitive distortions among eleventh-grade students? What is the level of achievement motivation among eleventh-grade students? Do cognitive distortions contribute to predicting achievement motivation among

eleventh-grade students? Are there statistically significant differences in the level of cognitive distortions among students due to the variables of gender and academic specialization? And finally, Are there statistically significant differences in the level of achievement motivation among students due to the variables of gender and specialization?

Objectives of the Study

The objectives of the current research aimed:

- To identify the extent to which cognitive distortions contribute to predicting achievement motivation among eleventh-grade students in North Al Sharqiyah Governorate in the Sultanate of Oman.
- To examine the simple linear relationship between cognitive distortions and achievement motivation.
- To reveal statistically significant differences in cognitive distortions and the level of achievement motivation depending on the variable of gender and academic specialization.

Research Questions

The following research questions are posed to guide the study:

1. What is the level of cognitive distortion among eleventh-grade students?
2. What is the level of motivation achievement among the sample members?
3. Do cognitive distortions contribute to predicting achievement motivation among eleventh-grade students?
4. Are there statistically significant differences in the level of cognitive distortions among students due to the variable of gender and specialization?
5. Are there statistically significant differences in students' achievement motivation due to the variable of gender and academic specialization?

Population and Sample of the Research

The study population consists of all eleventh-grade students in post-basic education schools in the North Al Sharqiyah Governorate in the Sultanate of Oman. According to the statistics shown in the educational portal for the academic year 2021/2022, the population consists of (3589) students, with (1884) male students and (1741) Female students distributed among (22) schools, aged between (16-17) years. The sample of the current study consisted of (404) male and female students who were selected by simple random method from post-basic education schools in the North Al Sharqiyah Governorate in the Sultanate of Oman. The table 1 shows the distribution of the sample of the study according to some variables:

Table 1: The Distribution of the Sample of the Study According to the Variables

Variable		Number	Percentage
Gender	Male	50	12%
	Female	354	88%
Academic section	Pure	293	73%
	Applied	111	27%
Total Numbers		**404**	**100%**

The current study relied on two scales: the first is the Cognitive Distortions Scale, which was prepared by Salah El-Din 2015. The validity of the scale was tested by calculating the correlation coefficients for the scale items with the total score of the scale and the total score for each of the six cognitive distortions fields using Pearson's coefficient at the significance level of 0.01 and the significance level of 0.05. The correlation coefficients were statistically significant for all items, with the items of each dimension of cognitive distortions being linked to the total score of the dimension, as well as the correlation of the score of each dimension to the total score of the scale, which means the validity of all items of the cognitive distortions scale.

The second scale was the achievement motivation scale for children and adults, prepared by Herman's 1987, The validity of the scale was extracted in the current study by calculating the correlation coefficients for the scale items with the total score of the achievement motivation scale using Pearson's coefficient at the significance level of 0.01 and the significance level of 0.05. The results showed that the correlation coefficients were statistically significant in that all items of the scale were associated with the total score. Internal consistency was calculated using the Cronbach's alpha method, and the Cronbach's alpha coefficient for the scale was (0.728), which is a high coefficient, which indicates acceptable reliability of the scale. Finally, the following statistical methods were used (a) Arithmetic means and percentages to compare differences in study variables according to demographic variables, (b)Simple linear regression to test the relationship between cognitive distortions and achievement motivation, (c) One-group t-test to find the level of prevalence of study variables in the study sample by comparing arithmetic averages with theoretical averages and (d) T-test for independent groups to examine the significance of differences in study variables according to demographic variables.

RESULTS

First Question: The first question of the current research was: What is the level of cognitive distortion among eleventh-grade students? To answer the question, the arithmetic average of the total score for the cognitive distortions scale and the dimensions was calculated, and the arithmetic average was compared to the theoretical average using the One Sample T-Test. Table 2 shows the significance of the differences between the theoretical means and the arithmetic means for the cognitive distortions scale.

Table 2: The Significance of the Differences between the Theoretical Means and the Arithmetic Means for the Cognitive Distortions Scale

The Dimension	Arithmetic mean	Theorical Average	Standard Deviation	Significance level	T value
Binary thinking	1.7611	2	.32900	0.00	-14.593
Overgeneralization	1.6792	2	.42812	0.00	-15.061
Personalization	1.8282	2	.37792	0.00	-9.136
Understatement	1.7005	2	.38598	0.00	-15.597
Selective abstraction	1.9797	2	.37527	0.278	-1.087
Catastrophic thinking	1.7463	2	.43922	0.00	-11.611
(scale degree)	1.7623	2	.27514	0.00	-17.365

From the table above, it appears to us that the arithmetic means for the cognitive distortions scale and the dimensions are less than the theoretical mean and that the apparent differences

between the arithmetic mean and the theoretical mean are statistically significant for the scale as a whole and all dimensions except for the selective abstraction dimension at the significance level (0.05). This result indicates that the study sample members do not suffer from cognitive distortions, and this result agrees with Shandok's Study 2019 and AL Assar's study 2015 which both studies clarified that the level of cognitive distortions was low in adolescents. Because cognitive distortions are an abnormal condition and indicate the presence of personality disorders, the decrease in the level of cognitive distortions among the sample members of this study can be explained by the fact that the sample consists of normal eleventh-grade students. Additionally, students in general are rational and have an acceptable level of general knowledge and awareness. They could make mistakes while processing facts when put in certain situations, but their fundamental ideas about the world and themselves are optimistic.

Second Question: The second question of the research was: What is the level of motivation achievement among the sample members? To answer the question, the significance of the differences between the arithmetic mean of the total score of the motivation achievement scale and the theoretical mean was calculated using the One-Sample T-Test, and the results were as follows:

Table 3: The Significance of the Differences between the Theoretical Mean and the Arithmetic Means of the Motivation Achievement Scale

	Arithmetic Means	Theoretical Average	Standard Deviation	T value	Degree of freedom	Significance level
Motivation Achievement	3.5569	3.5	.39760	2.878	403	.004

The table above clarified that the arithmetic means of motivation achievement was 3.6 which is higher than the theoretical average which reached 3.5, and the differences between the arithmetic and theoretical means are statistically significant. This means that most of the sample members have high levels of internal psychological states that inspire perseverance and motivate their behavior to strive for achievement. The researchers explain this result that the degree of success motivation for the research sample might therefore aid in identifying the psychological factors influencing personality as motivation represents the psychological style of the individual. A person's life orientations and feeling of satisfaction with how well they can use their skills to accomplish their goals are also reflected in their desire for achievement. The high degree of success motivation is a reasonable outcome that represents the students' orientations at this point and the unwavering pursuit of their objectives, and it can thus be claimed that the research sample consists of typical students, this finding and interpretation are supported by Hussein (1988).

Third Question: The third question of the research was: Do cognitive distortions contribute to predicting achievement motivation among eleventh-grade students? To answer the current question, the relationship was verified using simple linear regression between cognitive distortions and achievement motivation, and the results were as follows in Table 4 Pearson Correlation between cognitive distortions and achievement motivation.

Table 4: Pearson Correlation between Cognitive Distortions and Achievement Motivation

Cognitive Distortions	
-.216	Achievement Motivation

At the significance level (0.05), the Pearson correlation coefficient between cognitive distortions and achievement motivation is equal to (-.216), which is statistically significant. The degree of cognitive distortions and the degree of accomplishment drive, therefore, have a mediocre inverse relationship.

Table 5: Summary of Multiple Linear Regression Test Results

Correlation Coefficient	Square of the Correlation Coefficient	Adjusted R Square	Std. Error of the Estimate
.216	.047	.044	.26897

The Table 5 shows that the square of the correlation coefficient between cognitive distortions and achievement motivation is 0.04, that is, 4% of the variance in achievement motivation among students in the sample is due to the difference in the level of cognitive distortions. Since the influence rate (0.04) is less than (0.26), it indicates a weak influence rate according to Cohen's criteria. By examining the significance of the regression model using the ANOVA test, the researchers have found that the significance level of the regression model is less than 0.05, and they are statistically significant, hence the model has statistical significance and can predict the relationship between cognitive distortions and achievement motivation.

Table 6: Indication of Simple Linear Regression Coefficients

Sample	Unstandardized transactions		t	Significance level
	B	Std. Error		
Gradient Constant	4.107	.126	32.723	.000
Cognitive distortions	-.312	.070	-4.438	.000

Therefore, whether the cognitive structure is correct or distorted about the individual's competence and the academic future, it is possible to contribute to his/her readiness to afford accountability and plan for the future. Distorted thoughts related to self-unworthiness and about the unsuccessful academic future would weaken the student's willingness and ability to persevere.

Fourth Question: The fourth question stated: Are there statistically significant differences in the level of cognitive distortions among students due to the variable of gender and specialization? To answer the question, the difference between the arithmetic mean of the scale and the dimensions was calculated according to the variable of gender (Male - Female) and academic specialization (Basic/Advanced). using the T-test for independent samples. According to the gender variable, and because there was a clear unevenness in the number of students between male and female where the male students was only 50 meanwhile female students was 354, researchers resorted to Selecting a random sample using the statistical analysis program (SPSS) consisting of (50) female individuals and comparing it with (50) males. The results are shown in Table 7:

Table 7: Significances of the Differences between the Means of the Cognitive Distortions Scale Score and Dimensions According to the Gender Variable Using the T-Test for Independent Samples

The Dimension	Group	N	SMA	SD	FD	t value	Significance level
Cognitive distortions	Male	50	1.7906	.24389	98	.767	.649
	Female	50	1.7529	.24715	97.983		
Binary thinking	Male	50	1.7820	.29740	98	.407	. 925
	Female	50	1.7580	.29283	97.977		
Overgeneralization	Male	50	1.6680	.44191	98	.376	.394
	Female	50	1.6360	.40946	97.436		
Personalization	Male	50	1.9240	.39567	98	.810	.154
	Female	50	1.8680	.28745	89.454		
Understatement	Male	50	1.7240	.32799	98	.345	.019
	Female	50	1.6960	.47163	87.411		
Selective abstraction	Male	50	2.0600	.33625	98	1.343	.931
	Female	50	1.9680	.34843	97.876		
Catastrophic thinking	Male	50	1.7600	.41020	98	.351	.860
	Female	50	1.7300	.44274	97.434		

From the table above, we find that the differences between the arithmetic mean for males and females are all differences that are not statistically significant at the significance level (0.05), except underestimation dimension, the significance level (0.019) is smaller than (0.05), meaning that the differences are statistically significant in favor of the males with the larger arithmetic mean. (1.7240). That is, there are no differences in the level of cognitive distortions as a whole depending on the gender variable, and there are no differences in the dimensions depending on the gender variable, except in the underestimation dimension, there are differences in favor of the male gender. As for the specialization variable, the results are showing in the following table:

Table 8: The Implications of Differences in Cognitive Distortions and Their Dimensions Depending on the Variable of Academic Specialization

The Dimension	Group	N	SMA	SD	FD	t value	Significance level
Cognitive distortions	Advance	293	1.7571	.28366	-.620	.536	402
	Basic	111	1.7761	.25196			
Binary thinking	Advance	293	1.7549	.32364	-.614	.540	402
	Basic	111	1.7775	.34369			
Overgeneralization	Advance	293	1.6724	.45021	-.522	.602	402
	Basic	111	1.6973	.36468			
Personalization	Advance	293	1.8164	.35578	1.023	.307	402
	Basic	111	1.8595	.43115			
Understatement	Advance	293	1.6962	.39985	-.359	.720	402
	Basic	111	1.7117	.34817			
Selective abstraction	Advance	293	1.9843	.37911	.400	.690	402
	Basic	111	1.9676	.36635			
Catastrophic thinking	Advance	293	1.7432	.43641		.817	402
	Basic	111	1.7545	.44846			

Through the table above, we find that the differences between the arithmetic averages of the students' specialization (Advanced/Basic) in the cognitive distortions scale - the scale score and the dimensions - are all statistically non-significant differences at the significance level (0.01), that is, there are no differences in the level of cognitive distortions as a whole and their dimensions between the two majors. This means that the cognitive structures that the individual builds about himself and the world are not affected by the type of specialization that student's study. This result can be explained by the similarity of the social, familial, and educational circumstances for both genders in Omani society, where both genders and both specializations (advanced / Basic) are exposed to the identical type and level of guidance, as well as adequate education based on a positive perspective of oneself. And the quality of education related to specializations or genders does not create different patterns of thinking, but rather students in different specializations receive an education that gives them a correct thinking methodology that does not contribute to the formation of cognitive distortions in them.

Fifth Question: The fifth question stated: "Are there statistically significant differences in students' achievement motivation due to the variable of gender and academic specialization?" To answer the question, the differences were examined using a "t" test for two independent samples to find the significance of the differences in achievement motivation according to the variable of gender (Male/Female) and specialization (Advanced/Basic). As we mentioned before which are related to the unevenness in the number of students between male and female, wherefore, a random sample was selected using the statistical analysis program (SPSS), consisting of (50) female individuals and compared with (50) males.

Table 9: The Significance of the Differences between the Means for the Degree of Achievement Motivation According to the Gender Variable

Group	N	SMA	SD	FD	T value	Significance level
Male	50	3.4568	98	.38214	-1.734	.898
Female	50	3.5888	97.993	.37896		

The table above clearly clarified that the differences in the arithmetic averages between the average score for males (3.4568) and the average score for females (3.5888) are not statistically significant, as the significance level (0.898) is greater than (0.05). This means that the achievement motivation of the sample members is not affected by gender.

As for specialization, the results of the current study confirmed that there are no statistically significant differences in the level of motivation between scientific and literary specializations, meaning that the achievement motivation of the sample members is not affected by the difference in the academic specialization they study.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This scientific paper discussed the extent to which cognitive distortions predict achievement motivation among grade 11 students in the Sultanate of Oman's North Sharqiyah Governorate in the Sultanate of Oman. The study's conclusions showed that individuals in the study sample typically had high levels of achievement motivation and low levels of cognitive distortions.

The results also showed that there is a statistically significant negative relationship between achievement motivation and cognitive distortions and that the variables of gender and academic

specialization do not alter the relationship between achievement motivation and cognitive distortions because they are statistically significant.

Furthermore, the results showed that, albeit only to a very small extent (no greater than 4%), cognitive distortions can aid in the prediction of accomplishment motivation.

In Brief, the results of the current study showed the following:

- The level of cognitive distortions is low among eleventh-grade students.
- The level of motivation for achievement is high among eleventh-grade students.
- There are no differences in the level of cognitive distortion and dimensions due to the variable gender or academic specialization.
- There are no differences in achievement motivation due to gender or academic specialization.
- There is an inverse relationship between achievement motivation and cognitive distortion.
- Cognitive distortions contribute to predicting achievement motivation among eleventh-grade students by 4%.

Recommendations

Some recommendations were made in light of the study's findings and to help students, teachers and researchers to benefit from the findings. These included focusing on psychological counseling for students—even exceptional students and those who exhibit motivation for achievement—as this does not necessarily indicate the psychological health of the student and introducing group counseling programs that improve motivation for achievement and target cognitive distortions. Additionally, more research on the study's variables ought to be done. For example, a study akin to the current one should be carried out, with consideration given to defining the study sample to comprise two student groups: one group experiencing cognitive distortions, and the other group not experiencing them. The current study, with its results and scientific and theoretical framework, is an effective contribution in covering part of the effects of cognitive distortions on an important variable, which is the prediction of motivation to achieve in the educational field, which sheds light on a sample of high school students, and regardless of the specialization or gender of the students, it did not show any correlation or statistical significance.

REFERENCES

Alaa El-Din, Jihad Mahmoud (2013). Cognitive and Humanistic Psychological Counseling Theories. Amman: Al-Ahliya for Publishing and Distribution: First Edition.

Al-Jarah, Rania Walid, Al-Momani, Fawaz Ayoub (2020), The Level of Cognitive Distortions among Yarmouk University Students, Al-Quds University Journal for Educational and Psychological Research and Studies, 11 (31), 179-164.

Akin, A. (2010). Self-Compassion and Interpersonal Cognitive Distortions, Hacettepe University Journal of Education, 39(1), 1-9.

Al-Qarlah, Abdul Nasser Musa Ismail (2018), The level of awareness of using social networking sites and its relationship to cognitive distortion, Studies - Educational Sciences - University of Jordan - Deanship of Scientific Research.

Awan, Riffat-Un-Nisa; Noureen, Ghazala; Naz, Anjum (2011). A Study of Relationship between Achievement Motivation, Self-Concept and Achievement in English and Mathematics at Secondary Level. International Education Studies, 4 (3), 72-79.

Barriga, Alvaro (2000). "Cognitive distortions and problem behaviors in adolescents". Journal of Criminal Justice and Behavior, 27(1), 36-56.

Buğa, A., & Kaya, İ.(2022). The Role of Cognitive Distortions Related to Academic Achievement in Predicting the Depression, Stress and Anxiety Levels of Adolescents. International Journal of Contemporary Educational Research, 9(1), 103-114. https://doi.org/10.33200/ijcer.1000210.

Dobson, D., & Dobson, K. S. (2009). Evidence-based practice of cognitive-behavioral therapy. Guilford Press

Eric M. Anderman (2020). Achievement motivation theory: Balancing precision and utility. Contemporary Educational Psychology, 6, 1-7.

Gibbs,J and Barriga, A., (1996): Measuring cognitive distortion in antisocial youth: development and preliminary validation of the " How I Think "Questionnaire. Aggressive Behavior, Psychology Department, The Ohio State University, Columbus, Ohio (22), 333-343.

Kosheleva, Y. (2021). Linguistic analysis of automatic thoughts and cognitive distortions causes an individual's psychological problems. In O. Kolmakova, O. Boginskaya, & S. Grichin (Eds.), Language and Technology in the Interdisciplinary Paradigm, vol 118. European Proceedings of Social and Behavioural Sciences (pp. 658-670). European Publisher

Ledley, D. R., Marx, B. P., and Heimberg, R. G. (2010) Making Cognitive-Behavioral Therapy Woerk, 2nd edn. New York: Guilford.

Ozdel, k., Taymur, I., Guriz, S., Tulaci, R., Kuru, E & Turkcapar, M .(2014). Measuring Cognitive Errors Using the Cognitive Distortions Scale (CDS): Psychometric Properties in Clinical and Non-Clinical Samples. Measuring Cognitive Errors Using CDS, 9(8), 1-7.

Palacios Garay, J. P., Rodríguez Taboada, M. A., Alcas Zapata, N., Alarcón Díaz, M. A., Gallardo Lolandes, Y., Chumacero Calle, J. C. (2020). Personal constraints' impact on cognitive distortions in persons deprived of liberty. *Option*, 36(27), 1675-1690.

Radwan, Shaaban., & Abu Ubadah, Saleh Abdullah (2002), Manifestations of cognitive distortion in schizophrenics and depressives, Arab Studies in Psychology, Dar Gharib for Printing and Publishing, Cairo, Egypt, 1 (2).

Rosenfield, B. (2004). Relationship between Cognitive Distortions and Psychological Disorders across Diagnostic Axes. (Ph. D) .Philadelphia College of Osteopathic Medicine.

Shandoukh, Ali Rasan (2019), Cognitive distortions among middle school students, Journal of the College of Education, College of Education - University of Basra,) 32) 2, 523 - 5

Weiner, B. (2000). Motivation. In: Kazdin, et al. (Eds.) Encyclopedia of psychology. 5,314-317. New York: Oxford University Press.