Haigazian University

THE CONTRIBUTION OF STUDYING PSYCHOLOGY TO EMPATHY AND PSYCHOLOGICAL DISTRESS: A CROSS-SECTIONAL ANALYSIS

Masters in Clinical Psychology

By

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Table of Contents

List of tables

List of figures

Abstract

This study explored the effect of gender, self-efficacy, motivation, psychological distress, and studying psychology on the level of empathy of university students in Lebanon. A total of 310 students and graduates participated in the survey through an online questionnaire through social media platforms using the Basic Empathy Scale (BES), the General Self Efficacy Scale (GSE), Academic Motivation Scale (AMS), and the Kessler Psychological Distress Scale (K-10), comparing first year and last year undergraduate psychology students to first year and last year non-psychology students. Correlations, Analyses of variance, and regression analyses were used to determine the predictors of empathy as well as compare the various groups on empathy and psychological distress. The results showed that psychology students have higher empathy from the onset and that this does not increase throughout the psychology education and that women have higher empathy than men and were found to be more intrinsically motivated to study psychology. Motivation for studying psychology had no effect on empathy gained. General self-efficacy was found to be positively correlated with cognitive empathy but negatively correlated with affective empathy. Higher psychological distress was associated with higher affective empathy but was not predictive of cognitive empathy. Finally, graduates were found to have significantly lower psychological distress than students regardless of major.

Key words: University students, psychology majors, gender, academic motivation, general self-efficacy, psychological distress, empathy.

The Contribution of Studying Psychology on Empathy and Psychological Distress: A Cross-sectional Analysis

The purpose of this study is to assess whether studying psychology in an academic setting influences the quality of psychotherapy those students can provide. The way that this was to be evaluated was through the common factors principal in psychotherapy where it is generally regarded that there are factors common to all psychotherapies that contribute to the therapeutic process, which has been referred to as the "Dodo verdict" iterating that " all psychotherapies are created equal" (Wolfgang Tschacher, Ulrich Martin Junghan and Mario Pfammatter, 2014). The issue that this research paper is addressing is whether university psycho-education programs are nurturing the traits that are generally considered to be highly predictive of therapeutic outcome, but also important for psychologists in general regardless of applicability in a therapeutic setting. These factors for the purpose of this paper are empathy, psychological distress, self-efficacy, and motivation for studying psychology.

Universities advertise their education programs around several consistent benefits that come with learning psychology that are not restricted to practicing psychotherapy. Some of these benefits include applying psychology to everyday life, learning more about the self, learning valuable research and analytical skills, as well as learning strong communication skills. These lists claim that learning psychology will allow the graduates to have unique insight into why people behave the way they do, including their own selves, and that this information has practical applications in the work-field as well as in their personal life. This insight and the

communication skills overlap with the same processes that are active when empathic interactions are engaged.

The reasoning implies that over the course of the psychology education, psychology students will be using the knowledge that they are gaining to better understand themselves and their peers by actively practicing empathy, especially if their goal for learning psychology is "helping others" oriented, and this practice of empathy will cause a noticeable increase in their ability to empathize over time. This is influenced by whether the students have a strong sense of self-efficacy which can influence the level of empathy expressed in addition to motivation for studying psychology.

Martini, T. S., Judges, R., and Belicki, K. (2015) in their paper "Psychology majors' understanding of skills-based learning outcomes" found that psychology students on the undergraduate level have a sense of disappointment in what they have gained throughout the psychology education. Their expectations did not match the skills and information that they received, and they do not feel the level of competence they perceived they need to pursue a career in psychology. This was the case concerning three transferable skills: communication, critical thinking, and collaboration, which directly affects the employability when they first enter the job market.

Many other studies have demonstrated that psychology students had in fact gained the basic skills required that they can reasonably expect, despite the students' disappointment in the skills that they have gained (Bischoff, R. J., Barton, M., Thober, J. and Hawley, R., 2002; Gaither, G. A., & Butler, D. L. ,2005). These studies however focus on the APA standards for

what a psychology student should gain throughout the program such as an informational understanding of psychological concepts in a general way, as well as transferrable skills that are taught implicitly throughout courses. Although this may seem like a contradiction the studies have conflicting results because they were each measuring different transferable skills.

Clearly, it becomes important for educational institutions to understand the reasons behind this discrepancy between what psychology students are gaining and what they are expecting to gain. It is certainly unacceptable to disregard students' opinions concerning the skills gained as a result of self-report bias since the confidence that they have in the information directly effects their ability to function professionally at their optimum level (Bischoff et al, 2002). Furthermore, empathy has been confirmed to be an important trait for becoming a psychologist according to the most recent meta-analyses which included 82 independent samples and 6,138 clients. Despite that, studies that have explored whether the process of becoming a psychologist nurtures the traits that are essential for empathy, to the author's knowledge, is meager; even those that do so are anecdotal and do not deal with empathy as their primary focus (Elliott, R., Bohart, A.C., Watson, J.C., & Murphy, D., 2018).

The reason for this lack of research concerning the effect of studying psychology on empathy is partly because empathy has been regarded in the literature as a constant trait that does not change; however, as we will expand on in the literature review, empathy is malleable and can increase or decrease over time based on personal experiences, particularly experiences that provide new insight into the psychology of human behavior.

Background of the Study

In Lebanon, what makes the need for research on whether the psychology education improves empathy even more urgent is the lack of policy and legal licensing for practicing psychotherapy. Although there have been recent efforts by the Lebanese Psychological Association through the Ministry of Health to impose a licensing procedure without which it is illegal to practice psychotherapy, this has not happened yet. Meanwhile, many psychology graduates are taking it upon themselves to open private clinics, to be employed in international humanitarian organizations providing psychotherapy to Syrian refugees who underwent war trauma, and to appear on local television and radio shows giving direct advice to callers and guests as experts. Although this is clearly unethical and counter to the approved APA standards, the academic institution can take some extra measures to make sure that the fresh graduate is aware, not just through instruction but through effectively empathizing, that mental health issues require specialized intervention, the level of which they cannot provide.

In the Lebanese context it is also often joked about that studying psychology will cause people to become more psychologically distressed. The reasoning behind this is akin to what is referred to as “medical students’ disease” where second year medical students begin to envision that they have all the diseases they are learning about. Meaning that when people study psychology they will begin to believe that they have disorders when they do not, or that they will begin to overthink simple behaviors and regard them as symptoms of something more problematic, which in turn will become a source of significant distress.

In contrast, and as will be explained later, psychoeducation is implemented in medical and emergency settings (such as the case with psychological first aid) and has a protective effect rather than a harmful effect. Psychoeducation is the process of briefing individuals suffering

from a mental health condition about their condition, with the goal of both destigmatizing the experience and clarifying its characteristics, prevalence, and treatment options. Whether it has the same effect in classrooms as psychology students learn about various disorders is unknown. As with many effects studied in psychology, it can be argued one way or the other, and so it is important to see what the empirical evidence has to say. Thus, it is relevant to explore whether the myth can be debunked at least in the Lebanon specific context by measuring the psychological distress of first year psychology students and comparing them to that of last year psychology students and non-psychology students.

The ultimate purpose of studying anything is to either cause a change in behavior or a change in attitude. Of all the fields of study, psychology should affect these two dimensions even more so since the information in psychology shapes how one interprets the behaviors and attitudes of all the individuals that one comes across on a daily basis. These other individuals include those closest to the individual such as family members and significant others. In addition, psychology also shapes the way the individual interprets his own actions on an intra-personal level, which then interacts with the interpersonal in a systemic method; the two systems, interpersonal and intrapersonal, collide and influence each other. In the background research done, no article was found that addressed how learning psychology influenced these forces directly, but the purpose of the education system does inherently assume that the acquisition of this information will make individuals more apt at interpreting the psyche than individuals who had not acquired this information. This study does exactly that.

Significance of the Study

The main significance of this study is to identify gaps in the study of psychology in academia for the purpose of reinforcing and improving psychoeducation programs. It is expected that empathy will increase due to psychoeducation. If the this is true, concrete steps should be undertaken by academic institutions in order to ensure that empathy is explicitly taught as part of the curriculum. This can be done through various exercises requiring students to practice empathy as part of their course work.

Self-efficacy is an individual's belief in their own ability to execute goals. Albert Bandura (1982) defined it as one's perception concerning "how well one can execute courses of action required to deal with prospective situations". Individuals with high self-efficacy are able to exert effort for longer periods of time and are ultimately more likely to meet goals and reach successful outcomes. Fresh graduates are unlikely to exhibit high self-efficacy since they have not yet gained practical experience in their respective fields. It is relevant for informing fresh graduates that the lack of efficacy they may experience, although normal, is not entirely accurate, even in the face of experiencing a lack of ability to empathize. If efficacy is not consistent with the student's capacity to empathize, this will be evidence that the interaction between efficacy and empathy is a self-fulfilling prophecy. This will allow instructors to better prepare their students to expect feelings of low efficacy and understand that this low self-efficacy is what is limiting their potential to empathize.

Furthermore, this study will add to the body of research dealing with empathy, suggesting further research into whether empathy can be taught as oppose to being is not a constant trait that is determined by early adulthood. Research on empathy is very relevant not only to academia but to clinical work where pathologically low levels of empathy cause distress to the individuals

and/or to those around them such as with autism spectrum disorders and sociopathy. A study conducted combining the results of three meta-analyses conducted on victim empathy work with sex offenders has revealed that the benefits are still inconclusive, and a larger body of research is required in order to determine the value of such programs (Mann et al, 2013). The findings of this study can reinforce the model of rehabilitation systems in place of prison systems by solidifying the idea that empathy can be taught and thus reintegration into society is possible through a process that requires psychoeducation and rehabilitation focused on learning empathy.

The following section will discuss the theoretical and empirical literature on empathy, general efficacy, psychological distress, and motivation for studying psychology and proceeds to clarify the relationship between them and their relevance to the field of clinical psychology.

Overview of the methodology

This study was a quantitative one applying correlational research methods, analysis of variance, and regression to examine the proposed hypotheses. A purposeful convenient sample of 310 adult Lebanese university students, of which 172 were psychology students and 138 were non-psychology students, were reached out to using social media and were assessed through self-report measures. The survey package included a demographics questionnaire, as well as four psychological scales: Basic Empathy Scale (BES), the General Self Efficacy Scale (GSE), Academic Motivation Scale (AMS), and the Kessler Psychological Distress Scale (K-10). The survey package was administered in the English. The data were analyzed using the IBM SPSS Statistics program Version 25.

Chapter 2

Literature Review

The plan of this chapter is first to take each concept in turn, discuss its conceptual structure and implications. This will be followed, for each concept, by an up-to-date review of the relevant empirical data that have been obtained from testing hypotheses generated from such a conception. Finally, an integrated overview of the above theory and findings will be considered as providing the logical justification of the predicted relationships of the present study.

Empathy

Carl Rogers (1975) defined empathy as cognitive and emotional identification with the private world of another individual. To explore their private perception and consciousness while simultaneously gazing at their fears and failures with unfrightened and accepting eyes and to communicate that understanding reassuring them that you not only see where they are coming from, you understand perfectly well why they feel that way.

The definition that this study will adopt is that empathy is mainly concerned with insight into the inner workings of individuals, be it the individual's self or others', interpersonally (between two or more people) and intra-personally (within one person). This type of insight is integral for everyday life, for working and communicating with other individuals, and is essential for a healthy social life (Batson, 2011; Konrath & Grynberg, 2016). This becomes most obvious in the case of individuals with particularly low levels of empathy such as those with Autism spectrum disorder. Students who are in the field of psychology however have even more of a need to harness and develop this trait than the average student because their work is directly

related to their knowledge of, and insight into, human behavior. Empathy is the key to assessing different types of thinking, behaviors, and emotional reactions. It is also the ability to attribute those thoughts, behaviors, and emotional reactions to a comprehensive theory of understanding such that they may assess them accurately and effectively. Medical students are at present being encouraged and trained to practice empathy due to consistently better prognosis of patients with an empathic healthcare provider, and this is becoming officially integrated into the medical curriculum (Hojat, Gonnella JS., Mangione, Vergare, and Magee, 2002).

Empathy is usually separated in at least two main categories: Cognitive empathy and affective empathy. This distinction has been found to involve different enters of the brain- affective empathy as involving emotion simulation, using the emotion centers, mainly using the amygdala, and cognitive empathy which has to do with more deliberate perspective taking, as involving decision making centers , mainly the prefrontal cortex (Decety & Lamm, 2009; Goubert, Craig, & Buysse, 2009; Shamay-Tsoory, 2009)

Previous research indicated that students in the humanities departments tend to score higher on empathy than students in the scientific department (Wakabayashi, Baron-Cohen, Wheelwright, Goldenfeld, Delaney, Fine, Smith, and Weil, 2006). But so far, no research has been done on the effect of studying psychology specifically comparing first and last year psychology students in order to assess the effect of studying psychology, if any, on the level of empathy reported. The present study does exactly that.

In 2018, Putrin, Tabullo, Mesurado, and De Minzi conducted a study comparing four groups: first year psychology students, first year medical students, practicing psychotherapists,

and practicing health professionals. They found that psychology students scored significantly higher than health students on empathy. To measure empathy one of the tools they used was the Interpersonal Reactivity Index (IRI) which subcategorizes empathy into four subscales: two cognitive factors (perspective taking and fantasy) and two emotional factors (empathic concern and personal distress). Experienced psychotherapists scored higher than psychology students on cognitive empathy subscales but not on emotional empathy factors, which implies that there can be a change on certain empathy subscales and not others over time.

The skills that psychology students should gain are not just information recollection but rather a change in the way they perceive and interpret psychological information. So, since empathy is such an integral part of different psychology professions it is worth exploring if it increases throughout the course of the education as a side effect of studying psychology knowing that empathy does not change over time due to age alone (Grühn, D., Rebucal, K., Diehl, M., Lumley, M., & Labouvie-Vief, G., 2008).

There seems to exist a consistent gender difference in empathy scores with the females always scoring higher than the males (Eisenberg, N., & Lennon, R. ,1983; Baron-Cohen, S. and Wheelwright, S., 2004). This gender difference has been attributed to biology as well as through social role theory. Those who theorize this change to be biological attribute the higher scores on empathy in women as due to higher levels of oxytocin and the lower scores on empathy in men due to testosterone (Wuying, Jiamei, and Lianqi, 2014). Others attribute this biological difference to prenatal exposure to testosterone (Knickmeyer, Baron-Cohen, Raggatt, Taylor, and Hackett, 2006).

In social role theory, gender differences are explained through different gender expectations for men and women, which explains why generally differences in empathy do not appear before four years of age (Eisenberg, N., & Lennon, R. ,1983). Regardless of the explanation for the gender differences, it is clear there is a gender component in empathy.

Studies on the neural correlation of empathy reveal that although empathy is generally regarded as a trait that does not fluctuate over time, situational factors such as cognitive load and motivation for intentional empathy do effect students' abilities to be empathic and thus it is possible due to experienced factors over a long period of time to have an increase in empathy where empathy is intentionally employed and reinforced, with those with the lowest scores on empathy having significantly higher scores in the end (Rameson, L. T., Morelli, S. A., & Lieberman, M. D., 2012). Furthermore, as Rameson et al (2012) iterate through their paper, that the research supporting that empathy is a steady trait that does not fluctuate is scarce. What they demonstrated instead is that empathy does in fact fluctuate situationally, and thus is subject to change through learning. Indeed, more recent studies have confirmed exactly that short term planned interventions targeted to increase empathy have yielded moderate levels of success (Nosek, M., Gifford, E., & Kober, B., 2014; Stepien & Baernstein, 2006). Newer and newer studies are beginning to challenge the notion that empathy is a constant trait that does not change over time through workshops that focus on improving the understanding of the other and the self, and through mindfulness and non-violent communication trainings (Nosek et Al, 2014; Stepien & Baernstein, 2006). Non-violent communication theory proposes that habits of thinking and speaking leading to use of violence, whether social, psychological, or physical, are learned

through culture and come as a result of an attempt to attain “universal needs”. Universal needs are basic needs that all human beings share such as a need for safety, security, and acceptance. Based on NVC (non-violent communication theory), these universal needs are never in conflict with each other. It is strategies people implement in order to meet those needs that leads to an inability to empathize with others, which leads to violent conflict, which in turn diminishes people’s capacity to empathize further. One example of these trainings is the Rosenberg non-violent communication training which encourages the use of specific sentence structures in communication that aim to communicate needs clearly, in a non-judgmental tone, with the mindfulness that both parties can attain their needs if they are able to communicate those needs effectively and clearly (Rosenberg, 2004). What these trainings have in common with the study of psychology on a university level is that there is a central focus on better understanding the psychology of the self, the other, and of interpersonal communication objectively. This possible increase in empathy through the study of psychology is one of the possibilities explored in this paper.

In conclusion, empathy is an integral process of therapy that the therapist must possess (Jørgensen, 2004). It is the inherent ability to be able to see things from the other person’s perspective, the ability to understand the forces acting on an individual’s psyche. This is an insight that is essential for those working in almost all the domains of psychology whether working in research, clinical therapy, social psychology, or forensic psychology. In other words, it is a characteristic essential for all psychologists. Here lies the importance of not only having this characteristic but nurturing and developing it throughout the journey towards becoming a psychologist. Thus, the research question that presents itself is: Does the university psychology

education program enhance the characteristics essential to being a psychologist, and if so, does it affect different students differently?

Self-efficacy:

Martini et al (2015), observed that psychology students generally do not perceive that they have been provided with applicable skills throughout the course of their bachelor's degree. Many psychology students when faced with their first interview feel they are unable to express to their potential employers how their psychology degree has prepared them for the different tasks that they will have to face. If only considered their personal testimony, we would have to have serious doubts about the ability of the instructors to provide psychology students with the necessary skills that they will need in their professional careers. However, the authors highlight that students may have been unable to express the transferable skills gained due to these skills being *implicitly* conveyed by instructors while the material of the course is what is *explicitly* emphasized. Thus, the authors demonstrate that this perception is due to the students' inability to articulate their gains rather than the program being ineffective. Hence, their suggestion is instructors be more explicit about the essential transferable skills such as interpersonal communication. It is thus concluded that empathy may be one of the skills strengthened implicitly by the academic psychoeducation programs but not explicitly; even if direct exercises on developing empathy are not explicitly provided by university instructors such as those that have been successfully used in NVC trainings.

Gaither et Al (2005) also explored the issue of whether psychology students in the US are gaining the appropriate skills set by the APA in order to become effective psychologists, their

results confirmed that they were. However, in Gaither et al's study the emphasis was not on empathy but rather on general skills expected from employers. The current study puts the focus on empathy.

Whether these findings can be generalized to the Lebanese psychology programs remains to be seen. This again brings us to the same issue that psychology students who graduate with only a bachelor's degree may end up feeling that they did not gain what they had expected to gain throughout the course of their education. Indeed, the main problem Gaither et al's papers raise is that there is a consistent reporting by psychology graduates that they feel ill prepared and not well equipped in order to continue their professional careers. If so then there is a need for changes in the academic curriculum in order to amend the issue of discrepancy between psychology students' expectations and what they gain.

Bischoff et al (2002) also emphasized the role of confidence which psychologists gain over time. They followed family therapists throughout a three-year period and noted that confidence with their skills increases over time and this confidence allows therapists to better use their skills. Therapists who were already empathetic had trouble accessing this empathy when they felt they did not have confidence in the knowledge pool that they had with regards to the therapeutic situation they were facing; meaning that confidence in knowledge of psychology does play a strong role in an individual's ability to be empathetic by reducing the stress and anxiety caused by feeling inadequate visa vis the case at hand. As such, we could expect senior students to be more confident about their knowledge of psychology since they gained more

knowledge. However, it can also be the case that the more you study psychology, the more you discover that you do not know. As Socrates famously stated: “I know one thing: That I know nothing.” This effect has been studied by Dunning and Kruger (1999) as a cognitive bias for which they coined the term Dunning-Kruger effect. The Dunning-Kruger effect is a cognitive bias that confidence in one’s own knowledge decreases as one learns more about a subject with the highest confidence held by those who know most or least about it. Those who merely have a moderate understanding of a subject matter or skill are informed enough to be aware of the wealth of knowledge that they still lack while those that have no knowledge overestimate their understanding. It could be possible that this lack of confidence is a cognitive bias rather than an accurate representation of their skill level.

Here we face another issue which is whether confidence in the knowledge gained is a mediating factor in the students’ ability to engage in empathy. Bischoff et al (2002) argue that having confidence is integral to engaging in empathy, and so to measure this effect self-efficacy will be introduced into the methodology.

Academic Motivation

In addition to the effect of efficacy on empathy there is also the question of motivation for studying psychology. Researchers generally identify two main motivations of behavior, namely, intrinsic and extrinsic. Intrinsic motivation refers to engaging in activities for the sake of the pleasure the activity itself generates (Deci & Ryan, 1985). An example of intrinsic motivation is what is generally referred to as hobbies. Hobbies are often extracurricular activities

that people engage in, such as tennis or swimming, that they enjoy doing for the sake of doing them. These activities are performed with no need for external rewards which contrasts with external motivation, which is done for the sake of some external benefit or avoidance of some punishment. An example of extrinsic motivation is doing work for the sake of a financial benefit. According to Robert J. Vallerand (1997) 800 research papers have continuously confirmed this distinction between types of motivation and revealed a third category of motivation as well, amotivation. Amotivation refers to the lack of motivation which stems from the belief that no action can be taken to change the outcome, and thus there is no motivation to engage in the activity as there is no belief that one's own performance has any effect on the outcome of the activity. Thus, we are left with three types of motivation each of which have a different implication in terms of what drives people to do them, and hence on the individual's experience of them as they are doing them, which effects the likelihood that they will repeat them.

The type of motivation that has the highest likelihood of repetition and hence practice is intrinsic motivation. Extrinsic motivation usually only persists only as far as the external factors that are sustaining it are present. In fact, the introduction of extrinsic motivational factors can undermine intrinsic motivation. For example, if an individual were enjoying an activity such as playing the piano strictly for the pleasure of it, and was then asked to play for money, with time, the intrinsic motivation may diminish and become replaced by the extrinsic motivation, and then when external motivating factors disappear, the individual may lose both intrinsic and extrinsic motivation to play.

However, intrinsic and extrinsic motivation need not necessarily compete. Intrinsic and extrinsic motivation with respect to education can each be further broken down into three

subcategories. Intrinsic motivation has been broken down into knowledge, accomplishment, and stimulation. External motivation has been broken down into identified regulation, introjected regulation, and external regulation (Deci & Ryan, 1985; Deci, Vallerand, & Ryan ,1991).

These subcategories gave rise to the self-determination theory (Ryan & Connell, 1989). Self-determination theory puts self-determination at the top of the hierarchy of motivation and brings into the equation the notion of internalization. Internalization allows for individuals to transform external motivating factors into internally determined decisions. External factors which are successfully internalized are as effective as other intrinsically motivating factors and provide the same benefits, namely: competence, relatedness, and autonomy. More relevantly, Benware and Deci (1984) were able to demonstrate how this type of motivation resulted in better conceptual learning as well as better recollection of the information being studied by university students. Meaning, if the motivation for behavior is perceived by the student to be self-determined as opposed to controlled, even when it originates from external rather than internal sources, we find a higher rate of learning, enjoyment, and thus positive feedback, which fosters feelings of competence, autonomy, and relatedness. This in turn can become a motivational drive reinforcing the implementation and practice of the information learned. Given that empathy increases with exercise and practice, it can be hypothesized that those who are self-determined and practice the information learned increase in empathy throughout the psychology education, in contrast to those who study for external factors such as for the sake of passing exams.

It is common knowledge that different students go into psychology for different reasons. Stewart, Hill, Stewart, Bimler, and Kirkland (2005), have studied this; they have taken a sample of first year and senior year psychology majors and explored the motivations of psychology

majors in order to map out clusters of students based on their expectations and goals of studying psychology. Through mapping out their interests they were able to identify two major dimensions of interest types that divide psychology majors. These interest types were hypothesized to also determine the direction in which the psychology student would go post-graduation. The first of these major dimensions was the combination of factors that was conceptualized to be mainly focused on “helping others”. This dimension included items such as “help children with ADD/ADHD become aware of and modify their behavior” and “Helping employees deal with burnout”. This presents an almost obvious motivation that university instructors are quite familiar with; the desire to gain the skills necessary to help others deal with life stressors effectively. In such cases it becomes clear that the ability to empathize with others is both a predisposition that one major category of psychology students go into psychology in the first place and thus distinguishes them from other majors. These students can be hypothesized to be more motivated by empathy and this increased motivation may even manifest itself in higher academic performance which in turn can imply better implementation of empathy (Mega, Ronconi, and De Beni, 2014).

The study also points out that students have less interest in subjects like data analysis and research methodology, although these subjects are regarded by professionals as integral to the “helping others” process and are rated as not important by most students except seniors studying clinical psychology, which highlights the inconsistency between student expectations, and what is necessary to be effective in that field, emphasizing the student’s perception rather than the applicability of the skill. This phenomenon may explain why many psychology students have such an aversion to research methods and statistics.

The second major motivational dimension involved items that had no direct relationship to helping others. These items involved motivation such as gaining skills to use in another domain and a personal curiosity to understand themselves and others. These items grouped together have been conceptualized simply as “not helping others”. In other words, a “self” focused motivation rather than an “other” focused motivation. In this subcategory we would expect a lower motivation to learn due to empathy, and the motivation instead is for other rewards. In these cases, empathy can be hypothesized to have no relationship with academic performance but more importantly, it is plausible that the students in the second motivational dimension of “not helping others” score lower on empathy than students in the first “helping others” category of motivation.

Thus, we would expect that the intrinsic nature of their motivation for learning psychology would cause them to be affected differently than those who’s motivations were extrinsic. These motivational factors are a relevant aspect to be considered to see if all psychology students are affected similarly or differently based on their motivational interest.

Psychological distress

Psychoeducation is a technique often implemented in both psychotherapeutic and more informal social support settings. In most social programs and medical programs, psychoeducation is utilized as an inexpensive and effective alternative to psychotherapy to improve certain mental health problems such as depression, anxiety, and psychotic relapse (Romano, J. L., 1992); Lincoln, Wilhelm, and Nestoriuc, 2007). Since psychoeducation is useful

and effective even in short 10-minute briefings, as was confirmed by results obtained from five studies on passive psychoeducation for depression and psychological distress reviewed by Donker, Griffiths, Cuijpers and Christensen (2009). On basis of their metanalysis, the authors further emphasized that the quality of the psychoeducation was very important, meaning that some types of psychoeducation were more effective than others. This implies that learning psychology might influence psychological distress in a similar way if the type of psychoeducation in academia were similar to the type of psychoeducation in those studies.

On the choice of the psychology major:

There is a debate in the field of psychology concerning whether the prevalence of women in mental health professions is due to gender or due to personality. Helen C. Harton and Patrick C. Lyons (2009) conducted a study to compare psychology majors to non-psychology majors. Their study included 451 psychology majors and non-majors on empathy, career goals, and the perception of the importance of empathy for use in therapy. What they have found is that there was a mediation between gender and major on one of the subscales of the empathy (perspective taking) and the desire to enter a helping profession. What this suggests is that although women score higher on empathy than men, it is the personality difference that accounts for people choosing to enter psychology rather than gender. This related to the current study in that it highlights the differences from the onset between people who choose psychology and people who do not as stemming from differences in empathy and in their recognition that this skill can

be well implemented in the clinical psychology field. It is also relevant to contrast that although gender does seem to play an effect in the differences found between psychology majors and non-psychology majors, it is the motivation of the students that determines their choice of going into psychology rather than the prevalence of women who score higher on empathy on average that accounts for the differences measured.

The focus of this paper is empathy and how it is affected by general self-efficacy, psychological distress, and motivation for studying psychology. Based on the literature review we propose that empathy is positively correlated to self-efficacy, that intrinsically motivated students will display higher levels of empathy, that psychological distress will be lower amongst psychology graduates compared to non-psychology university students.

Hypotheses:

-Given that psychology students tend to score higher on empathy, and that studying psychology could increase empathy, we expect: There will be an interaction between Major and years in University on the Basic Empathy Scale (BES).

-Given that intrinsic motivation in education is linked to implementing information learned, and that psychology practiced can increase empathy: Psychology students with high intrinsic motivation will score higher on empathy than psychology students with low intrinsic motivation

- Given that extrinsic motivation in education is not linked to implementing information learned: Psychology students with high extrinsic motivation and those with low extrinsic motivation will have no difference in empathy.

- Since self-efficacy in psychologists is linked to the level of empathy they can access: There will be a positive correlation between on the Basic Empathy Scale (BES) and self-efficacy in Psychology students

- Since psychoeducation is used successfully in order to decrease psychological distress: First year psychology students will score higher on psychological distress than last year psychology students.

- Given that motivation for learning psychology can influence practice and thereby influence mastery leading to self-efficacy which predicts how much empathy psychology trainees are able to express: General Self-Efficacy will act as a mediating variable between motivation and empathy.

- Psychological distress, gender, Psychology major, and self-efficacy will predict empathy.

Chapter 3

Method

This chapter is an overview of the research methodology that was used to carry out this study. It includes the description of the sample population, the procedure used to administer the tests, a detailed description of the instruments used, an explanation of the data analysis and finally, the ethical considerations as well as the research limitations that were taken into account.

Participants

The participants of the study were 310 university students that voluntarily filled out the survey after being reached out to through social media, in addition to psychology students in Haigazian University that were requested to participate in exchange for classroom credit. The demographics were as follows (note: some of the values do not add up to 310 because the participants chose to leave that specific question unanswered). As can be seen below in Table 1, those who participated were 310 Lebanese, of which 69 were male and 241 were female. The participants were consenting adults whose age raged between 18 and 65 with an average age of 25.94. Of the 310 participants, 258 were not married and 48 were married. 145 were BA students, 47 were BA graduates, 55 MA students, and 9 were PhD holders. 172 were psychology students, and 138 were non-psychology students. 140 of the participants described themselves are not religious, and 137 described themselves as religious.

Table 1

Frequency and percentages of Demographics (N=214)

Variable	f	%
Gender		
Male	69	22.3
Female	85	77.7
University Year		
1st year student	52	16.8
Second year student	51	16.5
Last year student	61	19.7
Graduate	143	46.1
Marital status		
Single	258	83.2
Married	48	15.5
Religious		
No	140	45.2
Yes	137	44.2
Level of education		
BA Student	145	46.8
BA Graduate	47	15.2
MA Student	55	17.7
MA Graduate	54	17.4
PhD	9	2.9
Psychology Major		
No	138	44.5
Yes	172	55.5

Materials

The first section of the questionnaire package comprised of the participant consent form (see Appendix A) followed by the demographics questionnaire which covered the questions

regarding gender, age, religiosity, marital status, level of education, number of years in university, and whether they are psychology majors (Appendix B).

Four psychological tests namely, the Basic Empathy Scale (BES), the General Self Efficacy Scale (GSE), Academic Motivation Scale, and the Psychological distress scale followed the demographic section in the questionnaire package (see Appendices C, D, E, & F). These tests are described in detail in the section below.

- **General Self–efficacy** is measured in order to account for the level of confidence psychology students feel. The scale is designed for the general adult population, including adolescents. The scale is 10 items responses are made on a 4-point scale. Summing up the responses to all 10 items yields the final composite score with a range from 10 to 40. The construct of Perceived Self-Efficacy reflects an optimistic self-belief (Schwarzer, 1992). This is the belief that one can perform a novel or difficult task, or cope with adversity – in various domains of human functioning. Perceived self-efficacy facilitates goal setting, effort investment, persistence in face of barriers and recovery from setbacks. It can be regarded as a positive resistance resource factor. Ten items are designed to tap this construct. Each item refers to successful coping and implies an internal-stable attribution of success. Perceived self-efficacy is an operative construct, i.e., it is related to subsequent behavior and, therefore, is relevant for clinical practice and behavior change.

- **The Academic Motivation Scale (AMS):** Vallerand et al. (1992, 1993) developed the 27 question AMS with seven subscales, including three types of intrinsic motivation (i.e.,

knowledge, accomplishment, and stimulation), three types of extrinsic motivation (i.e., identified, introjected, and external), and amotivation. The scoring is a 7-point scale ranging from (1 = Does not correspond at all, 7 = Corresponds exactly). Their research split Deci and Ryan's (1985, 2000) original construct of intrinsic motivation into three subscales, namely: intrinsic motivation for knowledge, which assesses the drive to perform an activity for the pleasure and satisfaction experienced while learning; intrinsic motivation toward accomplishments, which assesses the desire to engage in an activity for the pleasure and satisfaction experienced from accomplishment or creation; and intrinsic motivation for stimulation, which measures the desire to perform an activity in order to experience stimulation. The same is done for extrinsic motivation with the following three subscales: identified regulation, which assesses the desire to perform activities in order to gain a sense of importance and personal value; introjected regulation, which assesses the experience of pressure and guilt; and extrinsic regulation, which measures whether students participate in activities to avoid negative consequences or achieve rewards. Lastly, amotivation assesses the experience of a lack of motivation.

The AMS has demonstrated adequate to good reliability and validity in several studies among high-school students (Grouzet, Otis & Pelletier, 2006), college students (Can, 2015; Fairchild et al., 2005), and university students (Vallerand et al., 1992), which reported alpha values for the AMS ranging between .62–.86 (Vallerand et al., 1992), .70–.86 (Cokley, Bernard, Cunningham & Motoike, 2001), and .70–.90 (Fairchild et al., 2005).

- **Basic Empathy Scale (BES):** Is originally a 40-item scale developed by Jolliffe, D., & Farrington, D. P. (2006). Data reduction was then used in order to shorten the scale and to develop a concise and coherent scale which measured cognitive and affective empathy. The responses are on a 5-point scale with 1 being the lowest and 5 the highest level of agreement with the statements in the scale.
- **Kessler Psychological distress Scale (K-10):** Developed by Kessler, R.C., Andrews, G., Colpe, .et al (2002), is a measure of psychological distress. The numbers attached to the 10 responses are added up and the total score is the score on the Kessler Psychological Distress Scale (K10). Scores will range from 10 to 50. The K10 has good precision in the 90^{th}-99^{th} percentile range of the population distribution (standard errors of standardized scores in the range 0.20-0.25) as well as consistent psychometric properties across major sociodemographic subsamples. The scale strongly discriminates between community cases and non-cases of DSM-IV disorders, with areas under the Receiver Operating Characteristic (ROC) curve of 0.87-0.88 for disorders having Global Assessment of Functioning (GAF) scores of 0-70 and 0.95-0.96 for disorders having GAF scores of 0-50. K10 also has had excellent internal consistency and reliability when administered over the telephone of a= 0.93).

Procedure

Participants were invited to participate in this study through the help of social media, specifically through Facebook and WhatsApp. Participants were provided with a link to the survey and left to fill out the questionnaire should they decide to do so on their own time. The

respondents were asked to fill out the questionnaire and requested to share the questionnaire with other university students they knew. Most of the people accepted to participate in the study. The survey was first administered through a pilot study of 50 respondents after which a few wording changes were done in response to questions raised by the respondents specifically to the question from the empathy scale "I can usually work out when someone is feeling upset" with the confusion being that "work out" also has the meaning of exercising and so it was replaced by "figure out". No other major changes were required.

Data Analysis

There were no major missing values that required the disposal of entries. After the surveys were filled online they were automatically transferred to an Excel spreadsheet which was later exported into SPSS for data analysis. Descriptive statistics was first run to get a primary overview of the gathered data followed by reliability checks, and correlation analyses to study the various relationships between the independent and the dependent variables.

As mentioned in the previous chapters the independent variables in this study are gender, major, years in university, general self-efficacy, academic motivation, and psychological distress. The dependent variable is the basic empathy scale. Therefore, correlation analyses were done in order to explore the relationship between the independent variables and the dependent variable. All these correlations were studied at the 0.05 significance level and sometimes also at the 0.01 significance level. A few more correlation analyses, One-way ANOVAs, two way ANOVAs, and t-tests were performed to discover additional significant correlations between various other variables mentioned in the questionnaires. Several regression analyses were also

run as an additional analysis in order to examine which of the independent variables predicted empathy, psychological distress, and general self-efficacy amongst Lebanese university students.

Ethical considerations

Before administering the study, the researcher applied for IRB clearance from the Ethics Committee at Haigazian University and was granted approval to proceed. Moreover, prior to requesting the completion of a survey, the researcher shared the purpose of the study. After explanation, the participants were asked to fill the questionnaire at their leisure if they chose to. No identifying information was requested in order to ensure anonymity, although many respondents did verbally state that they did complete it.

Validity on online Surveys

For a long time, the main issue concerning the validity of online surveys was the access to an internet connection. According to Wiersma, Wybo (2011) only people of middle and higher class used to have access to the internet before, but by 2010 80% of people had access to the internet in the united states. Since then access to the internet became much more universal such that everyone, including refugee populations, has access. This is even less of an issue in for university students in 2019 where internet access is not only provided by the university itself but is a necessary requirement in order to submit classroom assignments and receive essential documents as well as complete administrative tasks such registering for courses and paying tuition. Thus, it can be safe to assume that access to an internet connection is not an issue if the target of the survey is university students. The second issue concerning online surveys is low response rate. This runs the risk that people who respond to online survey are significantly

different that people who do not. Although this is still a valid argument and this is certainly one of the limitations of the study along with the bias that comes with self-report, the advantage is that it ensures that there is no coercion or Observer-expectancy effect, and it minimizes social desirability bias. These factors make online survey a tool with advantages that balance the disadvantages, especially considering that the number of psychology students in Lebanon specifically is relatively low compared to other countries and so the tool that has the widest reach is chosen due to necessity.

Chapter 4

Results

In this section the data collected will be analyzed in order to test for whether the hypotheses were supported, not supported, or partially supported. First, the reliabilities were calculated using Cronbach's alpha in order to confirm that the scales and subscales used have internal consistency and those scores were compared to previous reliability scares. Next, the hypotheses are restated followed by the relevant statistical analyses that will be used to determine whether the data collected supports it. Finally, additional analyses were used in order to explore for additional findings.

Reliability

Cronbach Alpha were calculated in order to measure the reliability of the scales as well as their respective sub-scales in table 2 on the following page:

Table 2

Previous and Current Cronbach's Alphas of the various Scales and Subscales

Scale or Sub-scale	Previous Cronbach's Alpha (average)	Current Cronbach's Alpha
General Self-Efficacy	0.86	0.85
Basic Empathy Scale	0.73	0.82
Cognitive Empathy	0.66	0.81
Affective Empathy	0.62	0.82
Total Motivation	0.81	0.90
Intrinsic Motivation	0.77	0.87
Extrinsic Motivation	0.77	0.89
Intrinsic Motivation-Knowledge	0.77	0.81
Intrinsic Motivation-Accomplishment	0.77	0.84
Intrinsic Motivation-Stimulation Involvement	0.77	0.70
Extrinsic Motivation-Identified	0.62	0.84
Extrinsic Motivation-Introjected	0.77	0.92
Extrinsic Motivation-External Regulation	0.77	0.90
Amotivation	0.77	0.88
Psychological Distress	0.93	0.92

All the scales used were found to be reliable ($\geqslant 0.7$). Some of the reliabilities were previously marginally acceptable in previous studies, however, Cronbach alpha values of the current study were consistently similar or superior to that of previous studies.

Hypotheses testing:

Given that psychology students tend to score higher on empathy than non-psychology students, and that studying psychology could increase empathy, we expect:

Hypothesis 1: There will be an interaction between Major and years in University on the Basic Empathy Scale (BES).

In order to test the hypothesis a four (Years in University) by two (Psychology Major, Yes/No) ANOVA was computed (Table 3) and the means are displayed in figure 1:

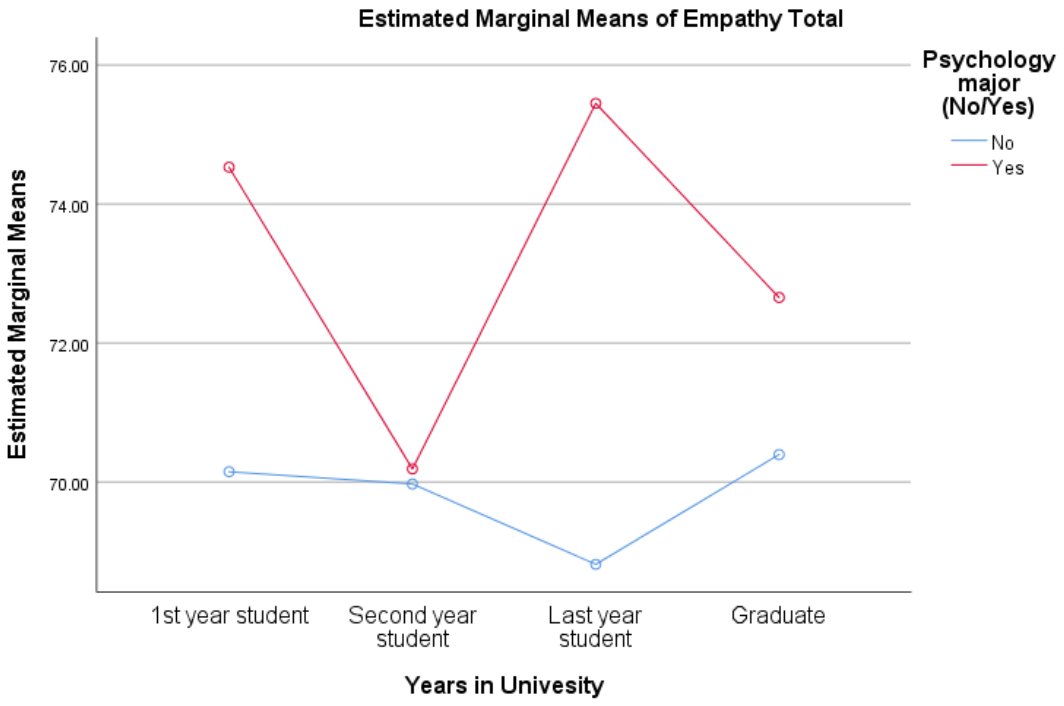
Table 3:

Tests of Between-Subjects Effects between Psychology Major and Years in University

Dependent Variable: Empathy Total

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1139.486[a]	7	162.784	2.021	.053
Intercept	1122657.532	1	1122657.532	13935.420	.000
Psychology Major (Yes/No)	**624.350**	**1**	**624.350**	**7.750**	**.006**
Years in University	141.303	3	47.101	.585	.626
Psychology major (Yes/No) * Years in University	299.157	3	99.719	1.238	.296
Error	23040.572	286	80.561		
Total	1535487.000	294			
Corrected Total	24180.058	293			

Figure 1:



The results showed no significant between-subjects effects meaning there is no interaction between Major and years in University, although these is a significant main effect for "Psychology Major" variable, and so Hypothesis 1 was not supported.

The next hypotheses deal with whether type of motivation for studying psychology influences empathy.

Hypothesis 2: Psychology students that are high on intrinsic motivation will score higher on

empathy compared to psychology students that are low on intrinsic motivation.

Hypothesis 3: Psychology students that are high on extrinsic motivation will score higher on empathy compared to psychology students that are low on extrinsic motivation.

The highs and lows on each the intrinsic and extrinsic motivation were determined on basis of the median cutoff scores dividing the population into four parts: High Intrinsic/High Extrinsic, High Intrinsic/Low Extrinsic, Low Intrinsic/High Extrinsic, and Low Intrinsic/Low Extrinsic. Finally, a two (Intrinsic/Extrinsic) by two (High/Low) ANOVA was used to compare the means with the dependent variables: Basic Empathy Total, Cognitive Empathy, and Affective Empathy. The ANOVA tables are displayed for each of the dependent variables respectively in Table 4, 5, and 6:

Table 4:

Tests of Between-Subjects Effects

Dependent Variable: ***Empathy Total***

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	124.365[a]	3	41.455	.461	.710
Intercept	799092.985	1	799092.985	8889.000	.000
Intrinsic groups	90.697	1	90.697	1.009	.317
Extrinsic groups	20.919	1	20.919	.233	.630
Intrinsic groups * Extrinsic groups	32.305	1	32.305	.359	.550
Error	14293.598	159	89.897		
Total	881148.000	163			
Corrected Total	14417.963	162			

a. R Squared = .009 (Adjusted R Squared = -.010)

Table 5:

Tests of Between-Subjects Effects

Dependent Variable: ***Cognitive Empathy***

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	50.754[a]	3	16.918	.725	.538
Intercept	218886.026	1	218886.026	9379.928	.000
Intrinsic groups	17.183	1	17.183	.736	.392
Extrinsic groups	27.502	1	27.502	1.179	.279
Intrinsic groups * Extrinsic groups	18.024	1	18.024	.772	.381
Error	3757.028	161	23.336		
Total	242524.000	165			
Corrected Total	3807.782	164			

a. R Squared = .013 (Adjusted R Squared = -.005)

Table 6:

Tests of Between-Subjects Effects

Dependent Variable: ***Affective Empathy***

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	41.591[a]	3	13.864	.242	.867
Intercept	229276.464	1	229276.464	3999.071	.000
Intrinsic groups	29.410	1	29.410	.513	.475
Extrinsic groups	3.990	1	3.990	.070	.792
Intrinsic groups * Extrinsic groups	.006	1	.006	.000	.992
Error	9287.854	162	57.332		
Total	255614.000	166			
Corrected Total	9329.446	165			

a. R Squared = .004 (Adjusted R Squared = -.014)

As can be seen in the above tables no significant effect was detected thus the hypotheses 2 and 3 were rejected.

The next hypothesis deals with how the ability to express empathy is influenced by self-efficacy with the prediction that higher self-efficacy is associated with more empathy.

Hypothesis 4: There will be a positive correlation between the Basic Empathy Scale (BES) and self-efficacy in Psychology students

To test the hypotheses a correlation matrix was calculated between the various dependent and independent variables as can be seen in Table 7 below:

Table 7

Correlation Matrix between the various independent and dependent variables: General Self Efficacy, Basic Empathy Scale, Cognitive Empathy, Affective Empathy, Psychological Distress, Intrinsic Motivation, Extrinsic Motivation, and Amotivation

Correlations

		General Self Efficacy Total	Empathy Total	Cognitive Empathy	Affective Empathy	Amotivation	Psychological Distress	Intrinsic Motivation	Extrinsic Motivation
General Self Efficacy Total	Pearson Correlation	1	-.021	**.299****	**-.239****	**-.203****	**-.341****	**.160***	.027
	Sig. (2-tailed)		.714	.000	.000	.008	.000	.037	.722
	N	310	297	304	301	172	304	170	170
Empathy Total	Pearson Correlation	-.021	1	**.682****	**.848****	-.114	**.138***	**.176***	.057
	Sig. (2-tailed)	.714		.000	.000	.143	.018	.024	.471
	N	297	297	297	297	166	293	164	165
Cognitive Empathy	Pearson Correlation	**.299****	**.682****	1	**.203****	**-.195***	-.032	.145	-.024
	Sig. (2-tailed)	.000	.000		.000	.011	.580	.062	.757
	N	304	297	304	297	169	299	167	167
Affective Empathy	Pearson Correlation	**-.239****	**.848****	**.203****	1	-.011	**.188****	.140	.087
	Sig. (2-tailed)	.000	.000	.000		.886	.001	.071	.263
	N	301	297	297	301	169	297	167	168
Amotivation	Pearson Correlation	**-.203****	-.114	**-.195***	-.011	1	**.265****	**-.383****	.024
	Sig. (2-tailed)	.008	.143	.011	.886		.001	.000	.752
	N	172	166	169	169	172	168	170	170
Psychological Distress	Pearson Correlation	**-.341****	**.138***	-.032	**.188****	**.265****	1	-.127	**.154***
	Sig. (2-tailed)	.000	.018	.580	.001	.001		.103	.048
	N	304	293	299	297	168	304	166	167
Intrinsic Motivation	Pearson Correlation	**.160***	**.176***	.145	.140	**-.383****	-.127	1	**.446****
	Sig. (2-tailed)	.037	.024	.062	.071	.000	.103		.000
	N	170	164	167	167	170	166	170	168
Extrinsic Motivation	Pearson Correlation	.027	.057	-.024	.087	.024	**.154***	**.446****	1

The results show that there is no correlation between General self-efficacy and the Basic Empathy scale, however, it did show a positive correlation with Cognitive Empathy (r (304) = 0.

.299, $p<0.001$) and a negative correlation with affective empathy ($r (301) = (-.239, p<0.001)$. Thus, the hypothesis was partially supported.

The next hypothesis deals with whether studying psychology has a protective effect against developing psychological distress.

- Hypothesis 5: First year psychology students will score higher on psychological distress than last year psychology students.

Interaction

In order to test the hypothesis a four (Years in University) by two (Psychology Major, Yes/No) ANOVA was computed (Table 8) with Psychological Distress as the Dependent Variable:

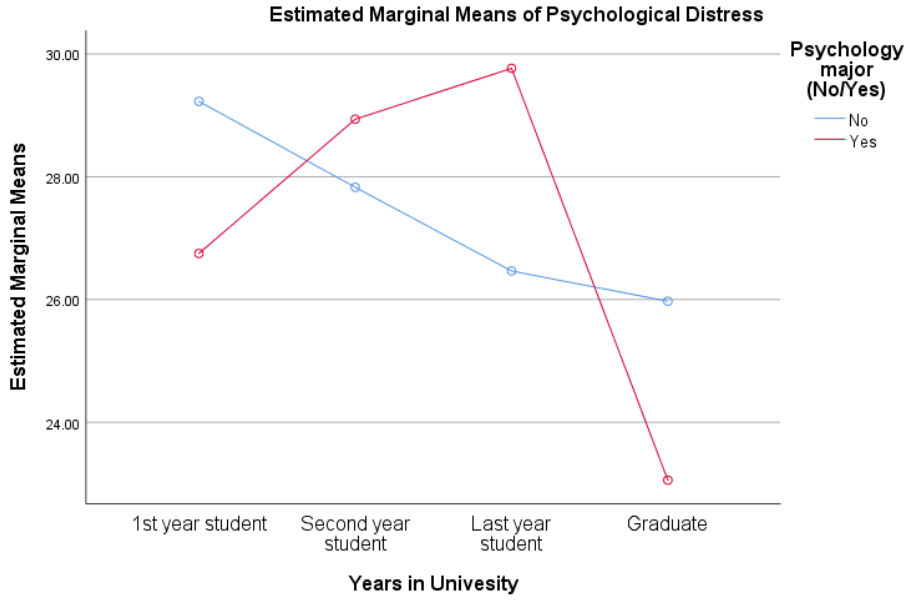
Table 8

Tests of Between-Subjects Effects

Dependent Variable: Psychological Distress

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1970.980[a]	7	281.569	3.303	.002
Intercept	164337.002	1	164337.002	1927.568	.000
Years in University	**815.199**	**3**	**271.733**	**3.187**	**.024**
Psychology Major (Yes/No)	3.335	1	3.335	.039	.843
Years in University * Psychology Major (Yes/No)	431.737	3	143.912	1.688	.170
Error	24980.043	293	85.256		
Total	232983.000	301			
Corrected Total	26951.023	300			

Figure 2.



The results reveal that there is no interaction, however, there was a significant main effect for years in University. Thus, a one-way ANOVAs was calculated with years in University as the independent variable and Psychological Distress as the dependent variable, the ANOVA is in in Table 9 and means are in Table 10:

Table 9:

ANOVA

Psychological Distress

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1508.524	3	502.841	5.870	.001
Within Groups	25442.499	297	85.665		
Total	26951.023	300			

Table 10:

Psychological Distress table of means divided by years in university

	N	Mean	Std. Deviation	Std. Error
1st year student	51	28.4510	9.39641	1.31576
Second year student	51	28.1765	10.10486	1.41496
Last year student	58	28.1724	10.37902	1.36283
Graduate	141	23.7801	8.35899	.70395
Total	301	26.1628	9.47822	.54632

The result of the ANOVA was significant at the $p<.05$ level. Post hoc comparisons using the Tukey HSD test indicated that the mean score for the Graduate group condition was significantly lower than the other three groups. Thus, the hypothesis was rejected.

The next hypothesis deals with whether self-efficacy is a mediating the effect of motivation for studying psychology on empathy.

Hypothesis 6: General Self-Efficacy will act as a mediating variable between motivation and empathy.

In the correlation Matrix in Table 4 we observe that there is no simultaneous correlation between the variables Motivation (intrinsic or extrinsic) and General self-efficacy with the variable empathy (general, cognitive, and affective); thus, the hypothesis is not supported.

The following hypothesis deals with the relationship between the demographic variables and the scales used in the study on empathy.

Hypothesis 7: Psychological distress, Gender, Psychology major, and self-efficacy predict

empathy.

Three regression analyses were done in order to weight the effects of each of the independent variables involved, namely, Age, Gender, Marital Status, Religiosity, Major, Years in University, Psychological Distress, and General Self efficacy, on the dependent variables: Empathy Total, Cognitive Empathy, and Affective Empathy. The results are in Table 11,12, and 13, respectively. In table 11 we have the independent variables Age, Gender, Marital Status, Religiosity, Major, Years in University, Psychological Distress, and General Self efficacy regressed on Empathy Total:

Table 11

Regression coefficients with Basic Empathy Scale Total as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	53.419	5.433		9.832	.000
	General Self Efficacy Total	.034	.114	.019	.302	.763
	Gender	**4.401**	**1.317**	**.206**	**3.341**	**.001**
	Age	.062	.088	.057	.704	.482
	Marital status (Single/Married)	.755	1.787	.031	.423	.673
	Are you religious (Yes/No)	-.848	.833	-.059	-1.018	.310
	Psychology major (Yes/No)	**3.104**	**1.179**	**.173**	**2.632**	**.009**
	Psychological distress	**.167**	**.061**	**.178**	**2.732**	**.007**
	Years in university	-.270	.523	-.035	-.515	.607

R Squared = .012 (Adjusted R Squared = .094)

In this regression table we have three significant predictors of Total Empathy: Gender, with women having more empathy than men, Major, with psychology majors having more empathy than non-psychology majors, and Psychological distress, with more psychological distress being predictive of more empathy.

Second, in table 12 we have the independent variables Age, Gender, Marital Status, Religiosity, Major, Years in University, Psychological Distress, and General Self efficacy regressed on Cognitive empathy:

Table 12:

Regression coefficients with cognitive Empathy Sub-scale as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	23.542	2.761		8.527	.000
	Age	.025	.043	.044	.571	.568
	Gender	**1.332**	**.667**	**.120**	**1.998**	**.047**
	Marital status (Single/Married)	-.165	.900	-.013	-.184	.854
	Are you religious (Yes/No)	-.697	.425	-.093	-1.639	.102
	Psychology major (Yes/No)	**1.617**	**.595**	**.173**	**2.716**	**.007**
	Years in University	.052	.267	.013	.193	.847
	General Self Efficacy Total	**.278**	**.058**	**.286**	**4.768**	**.000**
	Psychological Distress	.039	.031	.080	1.263	.208

R Squared = .0151 (Adjusted R Squared = .126)

In this regression table we have three significant predictors of Cognitive Empathy: Gender, with women having more cognitive empathy than men, Major, with psychology majors having more empathy than non-psychology majors, and General self-efficacy, with more self-efficacy being predictive of more cognitive empathy.

Third, in table 13 we have the independent variables Age, Gender, Marital Status, Religiosity, Major, Years in University, Psychological Distress, and General Self efficacy regressed on Affective empathy:

Table 13

Regression coefficients with Affective Empathy Sub-scale as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	33.897	4.335		7.820	.000
	Age	.046	.071	.052	.658	.511
	Gender	**3.287**	**1.045**	**.189**	**3.144**	**.002**
	Marital status (Single/Married)	.781	1.425	.039	.548	.584
	Are you religious (Yes/No)	-.246	.662	-.021	-.372	.710
	Psychology major (Yes/No)	**1.899**	**.939**	**.130**	**2.021**	**.044**
	Years in University	-.306	.417	-.049	-.733	.464
	General Self Efficacy Total	**-.288**	**.092**	**-.190**	**-3.140**	**.002**
	Psychological Distress	**.119**	**.049**	**.155**	**2.442**	**.015**

R Squared = .0142 (Adjusted R Squared = .117)

In this regression table we have four significant predictors of Affective Empathy: Gender, with women having more empathy than men, Major, with psychology majors having more empathy than non-psychology majors, and Psychological distress, with more psychological distress being predictive of more affective empathy, and General self-efficacy with more self-efficacy associated with less affective empathy.

The regressions revealed the independent variables significantly predict the dependent variables at the 0.05 level, which means that the hypothesis was supported.

Chapter 5

Discussion

The purpose of this study was to assess empathy amongst psychology students while taking into consideration other factors that affect empathy such as self-efficacy, psychological distress, and motivation for studying psychology as well as demographic variables such as gender. In this chapter, we discuss the results presented in Chapter 4 and how they connect to previous studies with respect to the hypotheses.

Hypothesis I, II, III

The results showed that there was no interaction between studying psychology and number of years in university, so the null hypothesis was not rejected. The results also showed that people with intrinsic or extrinsic motivation for studying psychology did not differ on empathy levels. This goes contrary to the background literature which suggests that empathy is a skill rather than a constant trait which can be increased with time. With this new information two possible explanations are proposed: 1) Empathy is a fixed trait that does not increase with time 2) The academic format of the psychology education does not allow for empathy to be practiced and nurtured.

1) There is a large body of research that has proclaimed empathy is a fixed trait, much of it is now dated. Most researches today accept the notion that empathy is both a trait that we are born with as well as a state of mind which one may activate or deactivate similar to the ability to engage in active listening (Neslihan Keser Ozcan, Hulya Bilgin, and Nevin Eracar, 2011). Should this option be true, it would need to be added to the body of

research that contradict with the empathy training programs run for nurses, physicians, and other medical staff (Neslihan et al, 2011). It also has implications towards treatments towards empathy deficient individuals with conditions such as autism and sociopathy. Although most trainings for autism focus on reducing the negative symptoms of autism such as repetitive behavior and tantrums which will be unaffected by these findings, however, rehabilitation for convicts with antisocial personalities is becoming more and more popular in developed countries, and these finding suggest that they may be unsuccessful with the rational that empathy is unchanging.

2) The second possibility is that it is not that empathy does not change with time and has to do with what conditions are necessary for empathy to increase or decrease and implies the absence of those conditions in current academic settings. One of the conditions necessary for empathy to increase is self-awareness. Mark Beitel, Elena Ferrer, John J. Cecero (2004) state that for there to be empathy (an understanding of others) there must first be self-awareness (an understanding of the self). One cannot relate to anther person's state of mind if they cannot identify within themselves when they themselves are going through something similar. In this respect, reading academic textbooks, writing research papers, and giving presentations do not address self-awareness directly. Thus, it can be argued that the academic format, which essentially favors the retention of information rather than the exploration of whether the information resonates personally, is not effective when it comes to nurturing empathy. At least it is not effective compared to other psychodrama techniques which lead to more self-awareness, which in turn leads to a better understanding of others. In this respect a recommendation can be made that

universities should use more activities involving utilizing the information they are learning in their lives through exercises, workshops, and field work, if they desire to enhance the level of empathy in their students throughout their education.

Hypothesis IV

The correlation table reveals that although there is no correlation between general self-efficacy and the basic empathy scale, there is a positive correlation between self-efficacy and cognitive empathy and a negative correlation between self-efficacy and affective empathy. What this correlation suggests is that the more self-efficacy one has, the more they are able to understand what someone else is going through cognitively, and the less we identify with them emotionally.

This is in line with a different categorization of affective empathy that is supported in some of the literature including a third subscale called emotion regulation. Emotion regulation is theorized in some constructs of empathy as the part of empathy that limits the automatic emotional identification of affective empathy (Decety, J., & Jackson, P. L., 2006). Identifying emotionally with someone triggers similar emotional responses within the person doing the identification which may interfere with the ability of the individual empathizing emotionally to respond appropriately to a situation. Take the example of paramedics during a medical emergency. Recognizing the emotional state of the victim's family members on the cognitive level is informative and provides the paramedics enough information to navigate through the intervention effectively without having the emotionally overwhelming state of empathizing with the victim's family members to stunt the process. Identifying with the family member's emotions personally however may interfere with the paramedic's ability to assess the situation efficiently

and with carrying out the intervention effectively due to internalizing the increased anxiety and panic. In light of how different levels of empathy are useful for understanding the different emotional states of others, and at the same time how the different types of empathy (cognitive VS affective) can interfere with an individual's ability to react efficaciously, it is possible to advocate that self-efficacy is associated to cognitive empathy positively and to affective empathy negatively.

Hypothesis V

There was no difference is psychological distress when comparing first year to last year students. However, there was a strong difference in psychological distress when comparing students to graduates. It's possible that the stress of being a student is in and of itself confounding the benefits of psychoeducation on psychology students and that this stress is more distressing to psychology students than it is to non-psychology students, but there is no evidence to support this claim in this current study. What is instead supported is that graduates have much lower psychological distress than students and so transitioning from student to graduate might be all it takes to significantly improve the psychological distress of students.

Hypothesis VI

The nature of link between self-efficacy and motivation was not supported to be that of mediation in this study. The fact that motivation has no effect on empathy gained is

counterintuitive based on previous research. What this implies is that regardless of the type or level of motivation for students for studying psychology, empathy remains constant. This should be taken into consideration when admitting students to clinical psychology programs for becoming psychotherapists. If future research does not confirm that empathy can be nurtured in the academic setting, exclusion criteria is suggested based on empathy scores restricting people with low empathy from becoming clinical psychologists.

There is however a correlation between general self-efficacy and intrinsic motivation. Intrinsic motivation is usually associated with better mastery of skills which in turn improves self-efficacy. The result is consistent with the literature though the hypothesis was not explicitly stated in the current study.

The negative correlations found between self-efficacy and amotivation is also consistent with previous literature. Efficacy is associated with perseverance and a drive towards completing goals, the opposite of amotivation.

The positive correlation between self-efficacy and psychological distress is also consistent with previous literature. Higher psychological distress is associated with a decrease in functionality and thus a decrease in general efficacy.

Hypothesis VII

The final regression done to weight the effect of the variables measures was found to be significant and revealed that the predictors of empathy in order of effect size are: Sex, psychological distress, self-efficacy, and whether they were psychology majors.

Gender:

Gender seemed to be the biggest predictor of empathy with woman having more empathy than men even after controlling for all other demographic and scale variables. This is consistent with previous studies which has been discussed in the background literature as well. Men tend to score lower on empathy cross culturally and this is one of the theories on why disorders such as autism and sociopathy are predominantly male. Adult women generally are observed to have more empathy than men as well as more emotional intelligence (Eisenberg, N., & Lennon, R. ,1983; Baron-Cohen, S. and Wheelwright, S., 2004; Wuying, Jiamei, and Lianqi, 2014; Knickmeyer, Baron-Cohen et al 2006). The significance of this finding is especially relevant given that the mental health field is made up of mostly women, including in the study's sample.

Given that gender in the regression equation had an effect while controlling for major reasserts that the difference in empathy between psychologists and non-psychologists is not due to gender differences alone but is to be attributed to a predisposition independent of gender which happens to be more prominent in females than in males. In other words, people go into psychology because they have more empathy from the onset and given also that the regression controlled for years in university, what is implied is that it is not that their empathy increases as they study psychology but that they go into psychology because they have more empathy.

Psychological Distress

Contrary to what conflict mediation studies suggest, it seems that as psychological distress goes up, empathy also goes up, particularly affective empathy. This has also been argued in evolutionary psychology as motivated by the need for restricting resources to what is essential for survival. This is because psychological distress is interpreted as an indicator of a lack of resources. When we have a lack of recourses, we have more incentive for being empathetic and investing on socializing and other types of grooming behavior that involve a level of reading other people's needs, meeting those needs, and reciprocating in the efforts of others where identified, i.e. empathy. The implications of this study clinically are twofold:

Improving the psychological distress of students through assimilating stress management techniques into the shared curriculum can improve the overall empathy of the students and potentially improve student life

Self-care for practicing clinical therapists is essential as the quality of their work may potentially deteriorate if their empathy suffers as their psychological distress increases.

Clinical Implications and suggestions for future studies

The clinical implication of the findings guides us towards the inclusion of the empathy building exercises used in medical settings into the academic context. How this will benefit clinical psychologists is by nurturing the traits associated with improved therapeutic outcome. These exercises are usually implemented with clinical psychologists in training but not with undergraduate students. However, given that in the Lebanon specific context students often begin practicing therapy with no prior training, we argue that it is pragmatically necessary to include some level of empathy exercises for undergraduate students. This inclusion of empathy exercises

will have a positive effect on preparing undergraduate students for the premature situation that they may find themselves in which may help reduce its potential harm. Moreover, it may aid to improve the self-efficacy of psychology students which has been seen in this study to be associated with higher cognitive empathy and lower affective empathy.

Another implication is that since the type of motivation that students enter the psychology domain with has no bearing on the empathy gained, a new research question presents itself. Should empathy be a fixed trait that does not increase with time even with the inclusion of these exercises, should students undergo an empathy assessment as a prerequisite to becoming clinical psychologists? To answer this question, we would require an experimental longitudinal design with the new empathy exercises as the intervention, this is the future research recommendation of this paper.

Limitations of the Study

The first limitation to be mentioned is the language limitation. The survey was done in English which is not accessible to all Lebanese students. Second, the online status of the study does favor those who have social media and excludes those who do not since social media was the main method of distribution. Third, given that the study is done with only Lebanese students limits its generalizability to other populations but also to university settings in different countries. Fourth, there is the limitation that comes with the level of accuracy associated with self-report which comes with all survey type research formats.

In conclusion

The results generally showed that studying psychology does not have a direct effect on people's empathy through this cross-sectional study but that people with higher empathy gravitate towards studying psychology. The results also confirmed that empathy can be predicted through psychological distress, psychology major, and gender, as well as through self-efficacy. It would be useful for future studies to include an experimental repeated measure longitudinal design in order to clarify the link between studying psychology and empathy. We suggest incorporating empathy exercises that increase cognitive empathy and decrease affective empathy for improved self-efficacy and less psychological distress for students.

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Appendix A
Participant consent form

I am Narsis Armani, an MA student at Haigazian University from the Department of Social and Behavioral Sciences (Psychology). I am currently carrying out an MA thesis research study that aims to investigate the effect of studying psychology on empathy and psychological distress in university students. Participants will spend an estimated 10-20 minutes on filling out the questionnaire. The survey consists of 4 questionnaires. Please note that participation in this study is completely anonymous and confidential. Your name or any other identifying information will not be asked. By proceeding in this online survey you are confirming that:

- ☐ I have volunteered to participate in this research project conducted for purposes of study. My participation is voluntary and does not involve payment of any kind.
- ☐ I agree to allow my son/daughter to participate in this research project conducted for purposes of study. My decision is voluntary and does not involve payment of any kind.
- ☐ I know that I can choose to withdraw from participation any time without any penalties or consequences whatsoever. I also hold the right to decline to respond to any question(s) that I may feel uncomfortable with.
- ☐ My participation involves answering a questionnaire.
- ☐ I have been assured that the researcher will maintain my identity securely confidential. I have been assured that the information from this interview will be used for the purpose of academic study only.
- ☐ I have received the assurance that this research study has been duly reviewed and approved by the Faculty of Social and Behavioural Sciences at Haigazian University.
- ☐ I agree that the data gathered be kept in a secure location under the care of the study investigators for a period of a period of 5 years as per the regulations of the Faculty of Social and Behavioural Sciences at Haigazian University.
- ☐ I have read, listened and fully understand the explanation given to me. All my questions have been satisfactorily answered.
- ☐ I, therefore, choose to voluntarily participate in this research study.

Appendix B
Academic motivation for studying psychology scale

Why did you choose to study psychology?

all rated on a 7-point scale (1 = Does not correspond at all, 7 = Corresponds exactly)

IMK1 Because I experience pleasure and satisfaction while learning psychology
IMK2 For the pleasure I experience when I discover new things in psychology never seen before
IMK3 For the pleasure that I experience in broadening my knowledge about psychology which appeals to me
IMK4 Because my psychology allows me to continue to learn about many things that interest me
IMA1 For the pleasure I experience while surpassing myself in my studies
IMA2 For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments
IMA3 For the satisfaction I feel when I am in the process of accomplishing difficult academic activities
IMA4 Because studying psychology allows me to experience a personal satisfaction in my quest for excellence in my studies
IMS1 Because I really like going to university and studying psychology
IMS2 Because for me, studying psychology is fun
IMS3 For the pleasure that I experience when I am taken by discussions with interesting teachers
IMS4 For the 'high' feeling that I experience while reading about various interesting subjects in psychology
EMID1 Because I think that studying psychology will help me better prepare for the career I have chosen
EMID2 Because eventually it will enable me to enter the job market in a field that I like
EMID3 Because this will help me make a better choice regarding my career orientation
EMID4 Because I want to show myself that I can succeed in studying psychology
EMIN1 To prove to myself that I am capable of completing my psychology degree
EMIN2 Because of the fact that when I succeed in studying psychology in university I feel important
EMIN3 To show myself that I am an intelligent person
EMIN4 Because I want to show myself that I can succeed in my studies
EME1 Because I need at least a university degree in order to find a high-paying job later on.
EME2 In order to obtain a more prestigious job later on
EME3 Because I want to have 'the good life' later on
EME4 In order to have a better salary later on
AM1 Honestly, I don't know; I really feel that I am wasting my time in school
AM2 I once had good reasons for going into psychology; however, now I wonder whether I should continue
AM3 I can't see why I go to school and frankly, I couldn't care less
AM4 I don't know; I can't understand what I am doing in school

Appendix C
General self-efficacy Scale

Write the number that best describes your opinion in the boxes below.

Response Format

1 = Not at all true 2 = Hardly true

3 = Moderately true 4 = Exactly true

1. I can always manage to solve difficult problems if I try hard enough.
2. If someone opposes me, I can find the means and ways to get what I want.
3. It is easy for me to stick to my aims and accomplish my goals.
4. I am confident that I could deal efficiently with unexpected events.
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.
6. I can solve most problems if I invest the necessary effort.
7. I can remain calm when facing difficulties because I can rely on my coping abilities.
8. When I am confronted with a problem, I can usually find several solutions.
9. If I am in trouble, I can usually think of a solution.
10. I can usually handle whatever comes my way.

Appendix D
Basic Empathy Scale

Please rate your agreement with the following statements from 1
to 5 (1 being the lowest and 5 the highest level of agreement).

1. My friends' emotions don't affect me much.
2. After being with a friend who is sad about something, I usually feel sad.
3. I can understand my friend's happiness when she/he does well at something.
4. I get frightened when I watch characters in a good scary movie.
5. I get caught up in other people's feelings easily.
6. I find it hard to know when my friends are frightened.
7. I don't become sad when I see other people crying.
8. Other people's feeling don't bother me at all.
9. When someone is feeling 'down' I can usually understand how they feel.
10. I can usually work out when my friends are scared.
11. I often become sad when watching sad things on TV or in films.
12. I can often understand how people are feeling even before they tell me.
13. Seeing a person who has been angered has no effect on my feelings.
14. I can usually work out when people are cheerful.
15. I tend to feel scared when I am with friends who are afraid.
16. I can usually realize quickly when a friend is angry.
17. I often get swept up in my friends' feelings.
18. My friend's unhappiness doesn't make me feel anything.
19. I am not usually aware of my friends' feelings.
20. I have trouble figuring out when my friends are happy.

Appendix E
Kessler psychological distress scale

K10 Test

These questions concern how you have been feeling over the past 30 days. Tick a box below each question that best represents how you have been.

1. During the last 30 days, about how often did you feel tired out for no good reason?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

2. During the last 30 days, about how often did you feel nervous?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

3. During the last 30 days, about how often did you feel so nervous that nothing could calm you down?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

4. During the last 30 days, about how often did you feel hopeless?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

5. During the last 30 days, about how often did you feel restless or fidgety?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

6. During the last 30 days, about how often did you feel so restless you could not sit still?

1. None of the time
2. A little of the time

3. Some of the time
4. Most of the time
5. All of the time

7. During the last 30 days, about how often did you feel depressed?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

8. During the last 30 days, about how often did you feel that everything was an effort?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

9. During the last 30 days, about how often did you feel so sad that nothing could cheer you up?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

10. During the last 30 days, about how often did you feel worthless?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

Appendix F
Demographic information

Demographic information

1. Age _____

2. Sex

Male

Female

3. Nationality_____

4. Marital status

Single

Married

5. Are you religious?

No

Yes

6. What is your education level?

BA student

BA graduate

MA student

MA graduate

PhD

7. Which University

8. Are you currently or were you previously a psychology major?

No After the last question in this section, skip to question 38.

Yes

9. Please select which below describes you best

1st year student

2nd year student

Last year student

Graduate