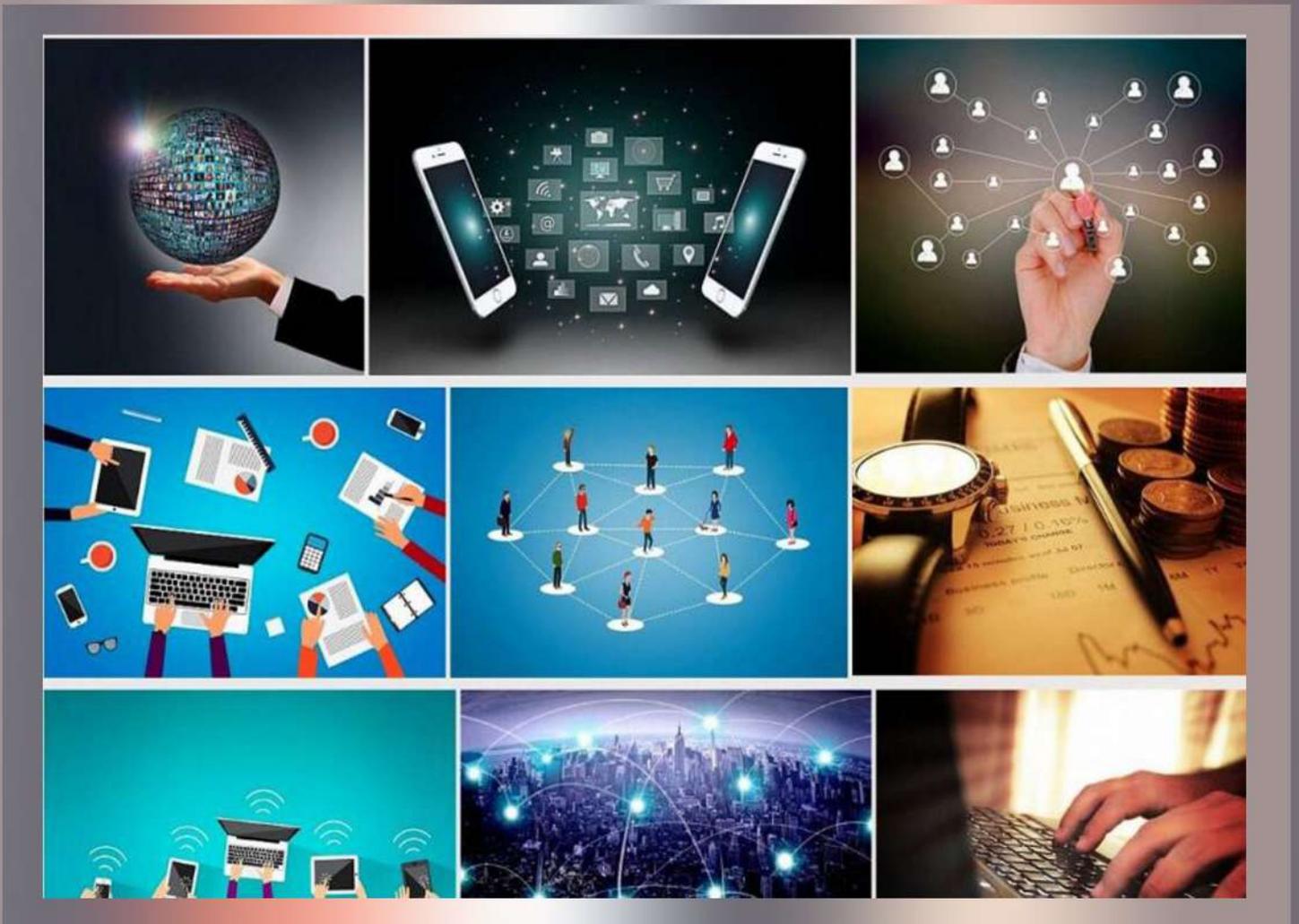


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Book Review

Enlightment in Darkness: United Nations and Behavioral Sciences Global Contribution

Congress EP, Takooshian H, Asper A, eds. *Behavioral Science in the Global Arena, Vol. 1: Addressing Timely Issues at the United Nations and Beyond*. Charlotte, NC: Information Age Publishing, 2020

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In an increasingly globalized planet, the first volume of Behavioral Science in the Global Arena aims to provide, not only to psychology students, but all kind of professionals, with the means to learn about how behavioral sciences are applied to global issues through the United Nations (UN's). The way it instructs is through analysis of the UN's 17 "Sustainable Development Goals," and how behavioral science is utilized to understand serious global problems such as child welfare, mental and physical health, terrorism, environmental considerations, aging and crime. The content is neatly accommodated in the following sections: "Serving Current Populations", "Upholding Social Justice", "Promoting Harmony", "Improving Human Health" and "Supporting Environmental Health" which presents the previously mentioned topics.

A commendable aspect of the volume is its accessibility in terms of major topics discussed and a critical comprehensive approach. This results in a product that is well-suited for both students and professionals, though the latter of which may prefer to use it as a source of references. Additionally, the fact that the editing was realized by UN representatives being a dean, a professor and a student (Elaine P. Congress, Fordham University Harold Takooshian, Fordham University and Abigail Asper, Psych Hub)

from Fordham University serve to anchor the material in an academically minded fashion, furthering its accessibility.

As far as its validity is concerned, 13 out of 16 chapters are co-authored with leading experts in the particular field the chapters entail, teamed with a student intern working with the UN. Every chapter also is formatted to include a glossary of key terms and concepts, study questions and lists of references. The knowledge this book contains is truly on the cutting edge of applied behavioral science, extending beyond academics, into professional diplomatic consultation, the promotion of human rights and sustainable development as inextricable focuses.

The fact that this publication is the first to focus on behavioral science within the United Nations grants it authority, making it a most deserving material to enrich the realm of applied behavioral science in both, to the academic and diplomatic communities alike. "Behavioral science in the global arena" manages to tackle a broad aspect of applied behavioral science in diplomatic affairs and successfully presents it in a manner well-suited for the academic and diplomatic spheres.

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Original Research

Empathy, Arrogance and Social Desirability Among Medical Students in Puerto Rico: An Exploratory Study Post-Hurricane María

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ABSTRACT

Introduction

Medical and psychological literature finds that empathy is crucial in the doctor-patient relationship, and that in the last 30-years there has been a decrease among college students, particularly medical students. After the passing of Hurricane María in Puerto Rico, many medical professionals migrated, leaving the island with fewer specialists to teach the remaining medical community. This is the first such study conducted with medical students in Puerto Rico. It examines the perception of empathy from the medical student perspective amidst the particular historical context of a national emergency.

Method

Three instruments were used: The Jefferson Scale of Empathy (Student Spanish Version) (JSE-S), Arrogance Scale (AS) and Social Desirability Scale. A Non-Experimental Correlational Exploratory study was carried out with 200 medical students (55.5% female; 44.5% male), who were coursing third (45.5%) or fourth year (54.5%), from three major medical schools on the island. The students signed informed consents and also answered sociodemographic questions.

Findings

The JSE-S demonstrated an acceptable internal consistency reliability ($\alpha=0.79$) with 11 items and three underlying factors. Female students showed higher empathy scores than their male counterparts ($M=73.96$ vs. $M=70.22$, $p=0.001$). The JSE-S and the AS were inversely correlated. Results support that social desirability is not statistically significant as a moderator between empathy and arrogance. Significant differences were found on arrogance scores pertaining to medical specialty and on religious background. Empathy and arrogance were unrelated to age, coursing year, income or university of precedence.

Conclusions

Raising awareness about the importance of empathy through positive role modeling, interpersonal dynamics and valuing the doctor-patient relationship through the formative years of medical school is recommended.

Keywords

Empathy; Jefferson Scale of Empathy; Medical students; Puerto Rico; Arrogance; Social desirability.

INTRODUCTION

Historically medicine, is universally considered a noble profession, even a “sacred calling”, to serve the needs of the ill and even face mortality in the hope of extending life. Physicians have been recognized as educated scholars who are dedicated to

serve their communities.¹ “There is a concern among educators that clinical training may have an adverse effect on medical residents’ and students empathy”.² Part of the ethic in medicine, and what should be emphasized during a student’s medical training, is to “learn the qualities of humility and ethical behavior from the professors whom they admire and wish to emulate”.¹ The literature suggests that physicians’ interpersonal

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skills are critical to establish positive and trustful physician-patient relationships³; having empathy towards one's patients contributes to better emotional communication and pro-social behavior.⁴

The new globalization informatics era has created greater public awareness of health and medicine, and with it, the emergence of the health care management system. Is it possible that this emphasis on the business aspect of medicine has diminished the humane doctor-patient relationship?

The physician has become a 'provider' and the patient a 'health consumer...' this distancing of the doctor from the patient breeds a kind of 'system arrogance,' in which the patient is no longer seen as a human being but simply as a job to be done cost-effectively.¹

Could it be possible that the business model of medicine has managed to create the "zeitgeist" of redefining not only the physician's role in medicine but also, how high of a value he or she perceives to have in comparison to others? "Every age develops its own peculiar forms of pathology, which express in exaggerated form its underlying character structure".⁵ Social critics and psychological theorists argue that contemporary culture, notably, North American society, has become excessively narcissistic,⁵ competitively individualistic⁶ and consumption-focused,^{7,8} highlighting the ideology of rampant capitalism. Such dispositions are fostered by the social, historical, political and economic context in which people are embedded.⁹ Thus, it is likely that physicians who project the images of "scholars", "saviors" and "providers" are not exempt from internalizing such dispositions.

Is it possible that even among these dedicated individuals that look out for the health and well-being of others there may be ones who are cold, arrogant and even self-centered? Do medical students consider themselves empathetic during their training? Does the rigorous medical training entitle them to become more arrogant? Is it possible to be both empathetic and arrogant at the same time? Do such dispositions have any influence on forming relationships that can affect the patient's outcomes? Does social desirability influence being empathetic or arrogant? These are some of the questions that we attempted to address in this exploratory study. There is no known study of these constructs, and their relationships among medical students in Puerto Rico. The larger intent of this study is to increase awareness that empathy is important in the medical profession.

LITERATURE REVIEW

Current college students are not as empathic as students from the 1980's decade or even the 1990's, and the largest decrease in empathy has been registered after the year 2000.¹⁰ A cross-temporal meta-analysis was conducted on American college students from 72 samples that examined empathy among 14,000 students throughout the last thirty years, between 1979 and 2009. The result shows that college students are 40% less empathetic than their peers, twenty or 30-years-ago.¹⁰ This is alarming because it means that college students are becoming less empathic. The development of

empathy is one of the most important attributes that can lead to effective communication between doctors and their patients.

Research has also shown gender differences with higher levels of empathy found in females compared to male medical students.^{2,11-13} It has also shown that students who were more focused in people-oriented specialties scored higher empathy levels than those who were more in technology-oriented specialties.² The author's argue that career preferences that change during the first three years of school may be partially influenced by change in empathy, but more studies are needed to confirm this. There are two necessary conditions to induce empathy: perceiving other people's needs and adopting their perspectives.¹⁴ In the medical context for empathy to be effective it must be perceived by the patient.¹⁵

Some studies have shed light on the patient's perspectives towards the physician's behavior. A qualitative study in which telephone interviews were conducted with 192 patients who were seen in 14 different medical specialties at Mayo Clinic, asked participants to mention their best and worst experiences with a physician. The results showed that "the ideal physician is confident, empathetic, humane, personal, forthright, respectful and thorough".³ On the other hand, the "worst physician" shows the opposite characteristics, such as being "...insensitive, (display) disrespectful behavior... and dismiss the patient's input".³ Taking cues from this, medical schools would be best advised to train future physicians to display behaviors that can lead to satisfied patients, and to better outcomes.

The term "arrogant" is a sociological concept and a personality trait that people perceive in others, a notable characteristic of the western culture.^{16,17} Arrogant people are those who perceive themselves as better than others or superior to all others, either for reasons of overvaluation of themselves or for their success in various personal or professional areas.¹⁶ In the medical context arrogance can be manifested in diverse ways such as "lack of respect, consideration, and good manners toward patients, nurses and other staff; failure to pause and listen, being abusive or critical of subordinates, sometimes even in patient's presence".¹ It is important for physicians to be aware that they may project arrogance while intending to project competence,¹⁸ by presuming to know everything, ignoring common sense, making rash decisions and neglecting to consult with co-workers.

Justification and Objectives

This study examined the relationship between empathy and arrogance among medical students in training. It's the first study, to our knowledge, conducted in Puerto Rico with this specific population using measures that were valid for Puerto Rico. After Hurricane María during 2017, a massive migration to the United States occurred. According to the U.S. Census Bureau, during the year 2017 over 130,000 people migrated from Puerto Rico to the United States.¹⁹ Moreover, Puerto Rico had been going through a decade-long recession, and during that time many physicians left for the mainland motivated by higher salaries and better benefits. Students also left during that time with the hope of having more options for medical subspecialties.²⁰

In the aftermath of María, and with fewer physicians available many professionals had their hands full with an overflowing schedule.²¹ It would be expected that more than ever under such traumatic circumstances physicians would be empathetic towards their patients. Is it possible that a certain type of arrogance flourished because time was more limited, and their short interactions may have had aversive effects on the patient-physician relationship?

The objective of this study was to get to study the physicians in training one year after Hurricane María in terms of how they perceive themselves and the level of empathy they show towards their patients.

The first objective was to validate the Jefferson Scale of Empathy (Student-Spanish Version) that would allow the scale to be used in the student population to measure empathy. The second objective was to identify if the arrogance scale (AS) negatively correlated with the Jefferson empathy scale (JES-S). The third objective was to identify if social desirability was a moderator between empathy and arrogance. Finally, the fourth objective was to determine if the sociodemographic variables presented any differences among the levels of arrogance and empathy in the medical student sample. Examining these constructs and their relationships may lead to the promotion of self-care, (how one projects towards others) as well as enhance interpersonal and doctor-patient relationship.

The hypotheses were based on the literature examining empathy and arrogance. For this study, medical students were chosen to be assessed from different cohorts, particularly third and fourth-year students, because at this stage they would be attending to patients.

EXPLORATORY HYPOTHESIS

First Hypothesis (H1)

The JSE-S and the AS will be inversely correlated; higher the score on the Jefferson Scale of Empathy, lower the score in the arrogance Scale. Second hypothesis (H2): Social Desirability will significantly moderate the relationship between empathy and arrogance. Third hypothesis (H3): Females will score higher on Empathy compared to males. Fourth hypothesis (H4): males will score higher on arrogance compared to Females. Fifth hypothesis (H5): Technology-oriented specialties will score higher on arrogance compared to people-oriented specialties. Sixth hypothesis (H6): People-oriented specialties will score higher on empathy compared to technology-oriented specialties.

METHOD

Sample

The sample consisted of 200 students enrolled in a medical program, in their third or fourth year. Table 1 shows demographic information across the three campuses. The participants were at

least 21-years of age, a resident of Puerto Rico for at least the last three years, able to read and understand English and Spanish and had a minimum of a Bachelor's Degree. In terms of specialty interest, 118 were "undecided", 72 reported interest in "people-oriented" specialties and 10 were in pursuit of "technology-oriented" specialties. The difference between the "people-oriented" and the "technology-oriented" specialty areas depends on the amount of time and interaction that is required of them to have with patients. It is most likely that a family doctor, for example, might spend more time with a patient than a surgeon or a radiologist that might have brief and isolated casual interaction. Medical specialty focus is shown in Table 2, based on previous literature.²²

Procedures

The research proposal was submitted to Institutional Review Board (IRB) at Carlos Albizu University and to the other participating Universities. Upon fulfilling the board's requirements and receiving approval, permission was granted by the Dean of Students, who provided an endorsement letter that allowed access to the students. A convenience sample of medical students was obtained from three medical Schools in Puerto Rico. Contact information was obtained through the university they attended. Each participant was informed of the voluntary nature of the study and the non-binding nature of his or her agreement to participate.

Each participant was personally visited at their Medical School Campus. The approach was made through some of the professors who opened the space after class for the administration of the survey to those students that were interested. Each participant was provided a thorough explanation regarding the purpose and the content of the survey. This information was transmitted orally that, reflected the content of the informed consent that they signed. It was explained to the participants that the purpose of the study was to explore the levels of empathy, arrogance and social desirability among medical students in their third and fourth year, and examine if there was any relationship among the variables. Participants were informed of the confidentiality regarding their participation, and were provided a window of ten minutes for asking questions about the study. To ensure confidentiality, each survey formed a "packet" and was distributed in a designated and appropriately labeled envelope. Once finished, participants stored their completed surveys inside envelopes. In a separate folder, signed consent forms were collected. Students completed the survey in their respective classrooms. The total time to complete the survey was about 20-minutes. All of the instruments and forms were in Spanish.

Instruments

The Jefferson Scale of Empathy (JSE-S),²³ Spanish Version: The JSE-S is a self-administered questionnaire, that aims to measure empathy among medical students. The original scale consists of 20 items, that measure empathy. Each item is rated in a 7-point Likert scale, 1=Strongly disagree, 7=Strongly agree. Half the items are reverse scored (1=Strongly agree, 7=Strongly disagree): Higher scores, imply higher empathy. In different versions of the

Table 1. Sociodemographic Characteristics of Medical Students Sample (N=200)

Characteristics	n	University of Puerto Rico n (percent)	Universidad Central del Caribe n (percent)	San Juan Bautista n (percent)
Gender				
Female	111	41 (20.5%)	25 (12.5%)	45 (22.5%)
Male	89	31 (15.5%)	18 (9.0%)	40 (20.0%)
Year				
3 rd	91	42 (21%)	17 (8.5%)	32 (16.0%)
4 th	109	30 (15.0%)	26 (13.0%)	53 (26.5%)
Age Group				
21-25	109	51 (25.5%)	13 (6.5%)	45 (22.5%)
26-30	86	20 (10.0%)	29 (14.5%)	37 (18.5%)
31-35	2	0 (0%)	1 (0.5%)	1 (0.5%)
36-40	3	1 (0.5%)	0 (0%)	2 (1.0%)
Income (\$)				
0-5,000	156	49 (24.5%)	34 (17.0%)	73 (36.5%)
5,001-10,000	4	3 (1.5%)	0 (0%)	1 (0.5%)
10,001-20,000	9	4 (2.0%)	1 (0.5%)	4 (2.0%)
20,001-30,000	7	4 (2.0%)	2 (1.0%)	1 (0.5%)
30,001-40,000	3	3 (1.5%)	0 (0%)	0 (0%)
40,001-50,000	12	5 (2.5%)	3 (1.5%)	4 (2.0%)
50,001-60,000	2	0 (0%)	2 (1.0%)	0 (0%)
60,001+	7	4 (2.0%)	1 (0.5%)	2 (1.0%)
Religion				
Catholic	94	31 (15.5%)	23 (11.5%)	40 (20.0%)
Protestant/Evangelic	39	14 (7.0%)	6 (3.0%)	19 (9.5%)
Agnostic	17	10 (5.0%)	1 (0.5%)	6 (3.0%)
Atheist	19	8 (4.0%)	8 (4.0%)	3 (1.5%)
Other	31	9 (4.5%)	5 (2.5%)	17 (8.5%)

Table 2. Medical Specialty Focus

Specialty Focus	Specialty Focus			Total
	Undecided	"People-Oriented"	"Technology-Oriented"	
Specialty Focus	118	0	0	118
Cardiology	0	2	0	2
Dermatology	0	2	0	2
Emergency	0	4	0	4
Family	0	8	0	8
General	0	5	0	5
Internal	0	20	0	20
Neurology	0	0	4	4
OB/GYN	0	5	0	5
Orthopedics	0	5	0	5
Pathology	0	0	2	2
Pediatrics	0	7	0	7
Peds Cardio	0	2	0	2
Psychiatry	0	9	0	9
Radiology	0	0	2	2
Surgery	0	0	1	1
Trauma	0	0	1	1
Urology	0	3	0	3
Total	118	72	10	200

scale, three underlying factors have been identified (perspective taking, compassionate care and standing/walking in the patients' shoes).^{15,23,24} An example of an item is, 'My patients feel better when I understand their feelings'. Internal consistency has varied between $\alpha=0.76$ and $\alpha=0.89$. The estimated time for administration of this measure is between five to ten minutes.

In the current sample Cronbach's Alpha was computed with each item deleted to examine the item quality. Nine total items were deleted and resulted in the scale having a Cronbach's α of 0.795, which implies good internal consistency reliability.²⁵ To explore the factorial structure of JSE-S in the medical student sample, all eleven items of the instrument were subjected to an exploratory analysis with orthogonal rotation (Varimax). The Kaiser-Meyer-Olkin (KMO) measure verified the sampling adequacy for the analysis, KMO=0.815. Barlett's test of sphericity $\chi^2(5)=529.960$, ($p<0.001$), indicated that correlation structure is adequate for factor analyses. A principal component analysis (PCA) was used to assess the dimensionality of the data of the modified JSE-S. The principal components factor analysis with a cut-off point of 0.30 and the Kaiser's criterion of eigenvalues greater than 1,²⁶ yielded a three-factor solution as the best fit for the data (Table 3), the first component explained 37.81% of the variance and all three factors account for 58.40% of the total variance (Table 4). These factors were comparable to previous studies, and was considered as evidence of the modified scale's validity for the current sample. The factors were not used as separate subscales.

The arrogance scale¹⁶: This scale has been developed to measure arrogance among Puerto Rican adults. It consists of 9 items in Likert Format (0=Strongly disagree, 3=Strongly agree). The total scoring varied from 0 as minimum to 27 as a maximum scoring, where higher scoring indicate, attitudes of overvaluation of the ego or arrogance (e.g. 'I feel superior to other people'). For this sample the internal consistency indicated good reliability, $\alpha=0.70$. The scale was administered in its original form in Spanish. Administration time for this measure was around five minutes.

The socially desirable response set measure (SDRS-5)²⁷: This is a self-report scale with five items. Respondents rank each item on a 5-point scale (0=Definitely True, 4=Definitely False). Because only the most extreme response is considered indicative of socially desirable responding, the responses are dichotomized in scoring of each item. This minimizes incorrect classifications of borderline responses as socially desirable. Higher score reflect more socially desirable responses (e.g. 'There have been occasions in which I have taken advantage of someone'). The scale was translated into Spanish taking into consideration the Puerto Rican culture. The internal consistency indicated good reliability $\alpha=0.69$. The administration time for this measure was approximately three-minutes.

Sociodemographic questions: Information was collected about gender, age, academic preparation, current year of study, specialty, income and university attended. Administration of this section of the survey was less than five minutes. The entire survey was administered in Spanish.

Table 3. Rotated Component Matrix

Rotated Component Matrix	Component		
	1	2	3
1. My understanding of how my patients and their families feel is a relevant factor in medical treatment	0.614	0.406	
2. My patients feel better when I understand their feelings	0.804		
3. I consider understanding my patients' body language as important as verbal communication in caregiver-patient relationships		0.812	
4. I try to imagine myself in my patients' shoes when providing care to them		0.618	0.447
5. My understanding of my patients' feelings gives them a sense of validation that is therapeutic in its own right	0.658		0.380
6. Patients' illnesses can only be cured by medical treatment; therefore, affection ties to my patients cannot have a significant place in this endeavor		0.392	0.337
7. I try to understand what is going on in my patients' mind by paying attention to their nonverbal cues and body language		0.642	0.398
8. Empathy is a therapeutic skill without which my success as a health care provider would be limited			0.675
9. An important component of the relationship with my patients is my understanding of the emotional status of themselves and their families	0.400		0.506
10. I try to think like my patients in order to render better care			0.663
11. I believe that empathy is an important therapeutic factor in medical treatment)	0.667		0.309

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

Table 4. Principal Component Factor Analysis

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.781	37.812	37.812	3.781	37.812	37.812	2.216	22.163	22.163
2	1.041	10.410	48.222	1.041	10.410	48.222	2.180	21.803	43.966
3	1.018	10.185	58.407	1.018	10.185	58.407	1.444	14.441	58.407
4	0.809	8.086	66.493						
5	0.783	7.826	74.319						
6	0.724	7.239	81.558						
7	0.555	5.546	87.103						
8	0.496	4.957	92.060						
9	0.462	4.622	96.682						
10	0.332	3.318	100.000						

Extraction Method: Principal Component Analysis.

RESULTS

Hypothesis 1: Empathy and Arrogance will be Inversely Correlated

We conducted a Bivariate Correlation Analysis between the individual items of the JSE-S and the AS, as well as the total scores. The results of individual item correlations yielded 12 statistically significant inverse correlations lower or equal to $r(198) = -0.18$, ($p < 0.05$, two-tailed). Also, there were 14 statistically significant inverse correlations higher than -0.18 or equal to $r(198) = -0.29$ ($p < 0.01$, two-tailed).

The three factors of the JSE-S were not used as separate scores. The correlation of the total scores was $r(198) = -0.175$, $p = 0.013$, ($p < 0.05$, two-tailed), indicating a low but statistically significant inverse correlation between empathy and arrogance scores, supporting the hypothesis. The analysis of the correlations between individual items across the two scales helped dig a little deeper to find out what specific aspects of each variable were related, further exploring the hypothesis. These correlations are elaborated on in the discussion.

Hypothesis 2: Social Desirability will Moderate the Relationship between Empathy and Arrogance

We examined Social Desirability (M) as a moderator between Empathy (X) and Arrogance (Y). Using PROCESS software in statistical package for the social sciences (SPSS), we conducted a moderation analysis. The interaction between empathy and social desirability was not statistically significant ($b = 0.912$, $SE = 0.918$, $p > 0.05$). However, there was a significant negative correlation between empathy and social desirability, $r = -0.36$, $p < 0.01$. Moreover, Social Desirability was not a statistically significant moderator between empathy and arrogance, $\Delta R^2 = 0.004$, $F(1,196) = 0.985$, ($p = 0.322$). A closer inspection of standard deviations showed that

when Empathy goes up by 1 standard deviation, Arrogance goes down by -0.473 standard deviations reflecting their inverse relationship. Also, when the interaction of both empathy and social desirability (goes up? Down? Specify), Arrogance goes up by 0.912 standard deviations. When social desirability goes up by 1 standard deviation, arrogance goes down by -1.18 .

Hypothesis 3: Females will Score Higher on Empathy than Males

We performed a univariate analysis of variance (ANOVA) to compare the effect of gender on empathy scores among medical students. Empathy mean scores for 111 female students ($M = 72.96$, $SD = 4.83$) was higher than 89 male students ($M = 70.22$, $SD = 6.35$). The Levene's F test revealed that the homogeneity of variance assumption was not met ($p = 0.007$). As such, the Welch's F test was used. An Alpha level of 0.05 was used for all subsequent analyses. Welch's $F(1,160.922) = 11.32$, ($p < 0.05$), 95% CI [70.94-72.74] reveals that there is a statistically significant difference between female and male students' empathy scores. This supports the hypothesis that female students score higher on empathy than male students. Further, Cohen's d effect size value was $d = 0.48$ suggesting a medium practical significance.

Hypothesis 4: Males will Score Higher on Arrogance than Females

We compared the effect of gender on arrogance scores among medical students using ANOVA. Results show that there is no statistically significant difference between female and male student's arrogance scores. $F(1,198) = 0.905$, $p = 0.342$, ($p < 0.05$ level), 95% CI [3.07-4.05]. Further, Cohen's d effect size value was $d = 0.130$, considered to be a relatively small effect size.

Hypothesis 5: Technology-oriented Specialties will Score Higher on Arrogance Compared to People-oriented Specialties

We performed an ANOVA analysis to compare the effect of spe-

cialty focus on arrogance scores among medical students. The Levene's F test revealed that the homogeneity of variance assumption was not met ($p=0.012$). Therefore, the Welch's F test was used. Welch's F (2,33.98)=3.62, ($p<0.05$), 95% CI [3.07-4.05] reveal that there is a statistically significant difference between specialties on arrogance scores reported. Further, Cohen's d effect size value was $d=0.52$, considered to be a medium effect size. Post-hoc comparisons using Games-Howell test indicated that the mean score for the "Technology-Oriented" specialty ($M=2.10$, $SD=1.59$) was significantly higher than the "Undecided" specialty group ($M=3.66$, $SD=3.88$). However, the "people-oriented" specialty group ($M=3.61$, $SD=3.12$) did not differ significantly from the "Undecided" or "Technology-Oriented" specialty groups. Therefore, this hypothesis remains unsupported.

Hypothesis 6: People-oriented Specialties will Score Higher on Empathy Compared to Technology-oriented Specialties

Using ANOVA analysis we compared the effect of specialty on empathy scores among medical students. Results indicate that there is no statistically significant difference between the specialties on empathy scores F (2, 197)=0.116, $p=0.891$ ($p<0.05$ level), 95% CI [70.94-72.54]. Therefore, this hypothesis remains unsupported.

ADDITIONAL EXPLORATORY ANALYSES

We performed posterior ANOVA analyses on the following:

1. We compared the effect of year of academic study (third or fourth year) on empathy scores among medical students. Results indicate that there is no statistically significant difference between third- and fourth-year students on empathy scores F (1,198)=0.811, $p=0.369$ ($p<0.05$ level), 95% CI [70.94-72.54]. Further, Cohen's d effect size value ($d=0.13$), considered to be a relatively small effect size.
2. We compared the effect of religion on empathy scores among medical students. The results indicate that there is no statistically significant difference among different religious affiliations and empathy scores F (4, 195)=2.034, $p=0.091$ ($p<0.05$ level), 95% CI [70.94-72.54].
3. We compared the effect of academic year of study (third or fourth year) on arrogance scores among medical students. Results indicate that there is no statistically significant difference between third- and fourth-year students (Report the mean scores and SDs here in paranthesis) on arrogance scores F (1,198)=0.147, $p=0.702$ ($p<0.05$ level), 95% CI [3.07-4.05]. Further, Cohen's d effect size value ($d=0.05$), considered to be a relatively small effect size.
4. We compared the effect of religious affiliation on arrogance scores among medical students. Results F (4,58.34)=2.34, $p=0.024$ ($p<0.05$ level), 95% CI [3.07-4.05], show that there is statistically significant difference among different religious affiliations, on arrogance scores. Further, Cohen's effect size value ($d=0.83$), considered to be a large effect size. Post-hoc comparisons using Tukey honestly significant difference (HSD) test indicated that the major statistical differences were found between those identified as "Atheist" ($M=6.05$, $SD=5.04$) who reported

higher mean scores than those that identified as "Protestant/Evangelical" ($M=2.61$, $SD=2.93$), $p=0.004$, $p<0.05$. There was also a significant differences found between "Atheists" ($M=6.05$, $SD=5.04$) and "Catholics" ($M=3.20$, $SD=2.96$), $p=0.011$, $p<0.05$, "atheists" scoring higher.

DISCUSSION

This study's results were from a battery of administered scales (Jefferson Scale of Empathy-Spanish Version, Arrogance Scale and Social Desirability Scale) with the following objectives: first, to validate the JSE-S; second, to examine if there is a relationship between empathy and arrogance; and third, identify social desirability as a moderator between empathy and arrogance and evaluate if the value of the moderator influences the relationship between empathy and arrogance. Also examined were the relationships of sociodemographic variables to arrogance and empathy in the medical student population.

First, the results obtained from the JSE-S contains 11 items, three factors and a reliability coefficient of 0.795, which suggest a reliable instrument for measuring the construct of empathy among medical students in Puerto Rico. This is consistent with results found by others in the literature^{23,28,29} among the Hispanic and Spanish speaking population using JSE-S. In comparison to the literature, the 11 items within these 3 factors all belong to the first two original factors on Perspective Taking and Compassionate Care.²⁴ The third factor was a trivial factor, or a residual factor, because it contains less than three items,^{28,30} although it doesn't seem to alter the overall components of the scale. Overall, the factor analysis confirms "cognitive" and "emotional" as the two main aspects of the empathic processes.³¹ While the factors were identified, only the total scores were used in the analysis. Factor analysis helped validate the Spanish/student modified version. This version of the scale would ultimately, represent a shorter and concise measure of empathy which means that this scale could be used as an alternative measure of empathy in the medical student population in Puerto Rico and othre Spanish speaking cultures.

The relationships found between items across, the JSE-S and the AS scales, support our proposed hypothesis of finding significant inverse correlations. For example, item 2 ("My patients feel better when I understand their feelings?") from JSE-S correlated significantly with most items on the AS scale, which would suggest that for empathy to be effective it must be perceived by the patient.¹⁵ Ultimately, this would be the opposite of an 'arrogant physician' who dismisses his patient's input and is perceived as insensitive³ which has proven to not promote a solid doctor-patient relationship.

Other items from JSE-S with inverse correlations with AS include: item 9, 'An important component of the relationship with my patients is my understanding of the emotional status of themselves and their families', item 5, 'My understanding of my patients' feelings gives them a sense of validation that is therapeutic in its own right' and item 7, I try to understand what is going on in my patients' mind by paying attention to their non-verbal cues

and body language'. This confirms that one of the most important components in the doctor-patient relationship is the level of understanding the physician has of the patient's inner workings, which can occur when the physician pays attention to the emotional state of the patient and communicates a form of validation. What also makes for a more comprehensive professional is to be able to pay attention to the nonverbal or body language that also emits further information about what the patient is experiencing.^{3,15,32}

As mentioned above, these specific and significant inverse correlations confirm that by keeping these items, we have more confidence that the instrument measures the construct of empathy that is differentiated from an arrogant mindset. The majority of the AS items emphasize on the individualistic aspects of the self in a way that does not require understanding of emotional connections with others, or promote closeness, which is the opposite of what we are striving for in the doctor-patient relationship. The disposition of arrogance highlights potentially negative and undesirable social consequences in interpersonal communication.¹⁷

Moreover, social desirability was included as a moderator variable and it has been identified as a key component of impression management.³³ Results support that the variable is not statistically significant as a moderator between empathy and arrogance. So, when the students report high social desirability (+1 SD), without considering empathy scores, the arrogance levels tend to decrease (-1.18 SD). In other words, a person that aims to be socially desirable or "liked" might reduce arrogance. However, when both empathy and social desirability interact, or are present, they tend to increase slightly the appearance or display of arrogance (0.91 SD).

Ultimately, this could suggest that by means of displaying good impression management, empathy and arrogance may co-exist, "*narcissistic individuals may have intact empathic ability, but choose to disengage from others' pain or distress, while others may have a deficient ability in the recognition of others' feelings*".³¹ It is possible that multiple relationships could exist between these constructs, given their complexity.³¹ Further studies would need to be conducted to assess this in detail, since arrogance is merely a trait examined under the umbrella of the narcissistic personality. On the other hand, empathy and social desirability appear to have a negative correlation; more empathic disposition seems to be associated with less need to look exceptionally good. Another result suggested that the higher the empathy score, the less tendency to be arrogant, which is consistent with previous research.

In terms of sociodemographic findings, the sample was predominantly female, half of the students were between the ages of 21-25 and reported an annual income of up to \$5,000. In our analyses, females did report higher mean scores for empathy than males, which is consistent with the hypothesis established in this study and with previous studies.^{2,11-13} However, there were no differences found in reported arrogance mean scores between female and male medical students. This is in contrast to the finding that Puerto Rican women in the general population tend to report higher levels of arrogance, in comparison to men.¹⁶ These results suggest the need for further studies regarding the construct of arrogance in relationship to gender.

In addition to this, there was no statistical difference on empathy and arrogance scores between third- and fourth-year students, contrary to the literature which suggests that there is a tendency for empathy scores to erode over time, as students go through medical school.^{2,34,35} It is possible that such erosion could be due to the lack of emphasis on empathy in the educational curriculum, the general atmosphere of the learning environment, lack of positive role models or student's negative experiences during medical school.²⁴ However, in the present study, it is likely that the specific time frame and learning environment during and after the passing of Hurricane María, might have sustained and enhanced empathy, along with having a good educational program and positive role models, which ultimately, is what we aim to raise awareness on with this study.

Another analysis found an unusually high number of "Undecided" students (about 59%) on choosing a specialty area ("people-oriented" versus "technology-oriented"). It is possible that because of small sample sizes, no statistical differences were found among the specialty areas on empathy scores. These findings do not seem consistent with what has been reported in the literature and with our original hypothesis, that those who practice in "people-oriented" specialties like general medicine, pediatrics, internal medicine and family medicine, would score higher on empathy than "technology-oriented" specialties like surgery or radiology.^{22,36}

High degree of uncertainty in choosing a specialization among large number of medical students may be due to a number of factors such as level of competitiveness among specialties, or that some specialties require more years of study, thus, excess work, with possible repercussions like financial problems due to higher student loans.^{2,37} Also, considering more than one area of specialty, coupled with the time it takes to finish a medical career, may lead to, a high degree of uncertainty. However, it should be noted that those interested in a "technology-oriented" specialty areas, tended to score higher in arrogance than the "Undecided" students in this sample. This is somewhat consistent with the literature that surgeons tend to score high on narcissism.³⁸

Moreover, it was interesting to find differences among religious affiliation on arrogance scores reported by medical students. Those who identified as "Atheist" scored higher on arrogance than those who reported "Protestant/Evangelical" affiliations. There were also some differences found with "Atheist" scoring higher in arrogance than those who report "Catholic" affiliation. These results suggest that not adhering to a particular Christian-based belief might lead to some degree of arrogance. Interestingly, there were no significant difference found among the mean empathy scores across the religious and non-religious categories (e.g. Catholic, Protestant/Evangelical, Agnostic, Atheist and Other). This could suggest that holding or not holding a religious belief, is not an influencing factor in showing degrees of empathy. However, the same may not be said for those that do not hold some type of religious belief when it comes to cultivating other personality traits, such as arrogance.

A similar finding on empathy (? , clarify) was reported

in general Puerto Rican samples where those who practiced Protestant Religious beliefs tended to score higher than those who identified as Catholics.¹⁶ While the literature seems to suggest that Atheists tend to score higher on arrogance, in the Christian-Based beliefs, Protestants tend to show more arrogance than Catholics. Taking into account that Puerto Rico's historic religious foundation is mostly Catholic, as was also the case with half the students in this study, it appears that the faith traditions Puerto Ricans follow may have implications for the way they relate to the self and to others.

GENERAL CONSIDERATIONS AND LIMITATIONS

There are certain considerations and limitations to this study. For example, certain medical institutions on the island did not participate. In future studies they should be included in order to generalize results across the four major medical universities in Puerto Rico, and to the medical student population. In addition, having a larger sample that represents both "people-oriented" specialties and "technology-oriented" ones may result in greater confidence in the findings with more reliable and generalizable results.

Self-reported data of the JSE-S limits some validity of the findings because of over or underestimating their own empathic practice. The negative correlation between social desirability and empathy would suggest a possible bias. The JSE-S assesses disposition from the medical student's point of view, and doesn't address the patient's perception of empathy, which is the other half of the relationship.³⁹ The correspondence between the physicians' and patients' perceptions would be helpful to study further since, according to the literature, patients tend to interpret empathy differently from the way physician would.⁴⁰

FUTURE STUDIES AND CONCLUSIONS

Future research for use the JSE-S, using both, the long version and the version proposed in this study in a randomized controlled trial (RCT) is suggested in order to evaluate their psychometric properties, including the factors it contains. If all four medical universities of Puerto Rico participated in this study, a large-scale research could be conducted to develop norm tables for Puerto Rico and cut-off scores for the JSE-S.

Another consideration would be to conduct longitudinal/cross-sectional studies using the JSE-S on students all the way through medical school, using the total score as well as the factor scores, so that the results would be more informative of the trajectory of empathy in a particular institution. Such studies might provide better insight regarding the importance of empathy, while promoting more interest to sustain and enhance it. Fostering empathy should be supported by a proper learning environment as well as by practitioners who serve as role models. Potentially, more entrenched empathic practice would result in greater satisfaction in the doctor-patient relationship, more successful treatments, and a more rounded educational outcome in the field.

Further variables that could be explored in the relationship to empathy could include burnout, workload, personal stress-

ors and other personality traits. Further studies could be conducted by examining the relationships of the patient's perception of the interaction with his or her medical provider as well as the medical provider's perception of his or her performance.

In conclusion, this study is relevant and important as it takes a closer look at future medical professionals in their prime formative years as medical students. Having a validated instrument that measures empathy among this population may help increase awareness of its importance in the medical profession as it promotes opportunities for further research in Puerto Rico. Also, it may encourage similar research by scholars and practitioners in other Hispanic Latin Countries.

Other constructs that were examined such as arrogance and social desirability allowed a closer look at how impression management may moderate the display of empathy behaviors and arrogant ones. Moreover, we should consider the possibility that both may coexist in a manner that suggest that social impression management is relevant in social interactions. Having knowledge of empathy and arrogance and their possible impact could propel not only the promotion of self-care and how one projects towards others, but a favorable cohesion in interpersonal work relationships. Creating the culture of self-care among those that take care of others, surely will reap rewards not only within the health care system, but among other human relationships.

Empathy is the foundation of the doctor-patient relationship, which ultimately shapes the calling of the well-rounded scholar and healthcare professional who serves his or her community and embodies what he or she represents. If training institutions attempt to intentionally cultivate empathy, humility and ethical behavior from the beginning of a student's medical, professional development it may begin to revolutionize health care back to its authentic roots of doing no harm and promoting justice.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

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Original Research

Vaping and Edibles: Self-Reported Usage Patterns Among Teens In and Out of Treatment

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ABSTRACT

Objective

This article examines one key aspect of the Substance Abuse Subtle Screening Inventory (SASSI) Institute's forthcoming third iteration of the Adolescent Substance Abuse Subtle Screening Inventory (SASSI-A3). Overall project aims were to revise the second version of the adolescent SASSI (SASSI-A2), and to update new symptom-related identifiers of substance use disorders in adolescents according to the diagnostic and statistical manual of mental disorders, Fifth Edition (DSM-5) guidelines.

Methods

We added new questions regarding cannabidiol (CBD) edible consumption and the extent of vaping to review and subsequently address these dangers in teens. Identifying these patterns will inevitably direct the course of subsequent clinical interviews and treatment planning. Early intervention is a critical component towards preventing possible negative outcomes for substance misusing teens.

Results

This aspect of the research demonstrated a connection between a higher acknowledged usage pattern of teens in treatment *versus* teens not in treatment. Correlations between beliefs associated with marijuana legalization, marijuana usage by family and friends, tobacco use, connection between age at first use, and the onset of regular usage patterns were also shown to be significantly higher among teens in treatment.

Conclusions

Teens that begin using alcohol, drugs, and tobacco early in adolescence are more likely to engage in vaping and edible usage. They are also more likely to use at a more frequent rate. In addition, teens who are surrounded by family and friends who engage in marijuana use are more likely to be supportive of its recreational use and legalization. This acknowledged information on the SASSI-A3 can help direct treatment planning early in the counseling relationship and provide a gateway for bringing family in the treatment and education process.

Keywords

Adolescents; Vaping; Edibles; Tobacco; Marijuana; Cannabis.

INTRODUCTION

Cannabis legalization in the United States for both medical and recreational use has had an impact on how it is consumed (e.g., vaping and edibles) by both adults and adolescents. Studies demonstrate cannabis use by adults often occurs in conjunction with other modes of marijuana use, especially among recreational users.^{1,2} Teens in particular however, are especially vulnerable to the escalation of vaping and use of edibles (cannabis-infused

candy, bakery items, etc.) because marketers of these products promote them in ways that make them seem quite appealing to youth.³ It should be no surprise therefore, that as a result of this widespread exposure, teen curiosity about vaping and edible consumption has increased to an alarming degree.⁴

Dating back to the early twentieth century, there were two prevailing schools of thought as pertained to acceptable marijuana use and its prohibition.⁵ More recent claims that marijuana

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has medicinal benefits create additional challenges for adolescent prevention efforts as they contrast with messages of its harmfulness.⁶ The earlier mainstream messages suggested that marijuana use was a harmless source of mood alteration, was not dangerous, nor produced serious long-term deleterious effects. Even Harry Anslinger, the first commissioner of the newly formed Federal Bureau of Narcotics went on record essentially saying cannabis use was “no big deal.” He called the idea that it made people mad or violent an “absurd fallacy.”⁷ Interestingly, prior to the passing of the Marijuana Tax Act in 1937, which outlawed possessing or selling pot, Anslinger drastically changed his position and as a consequence, he made it his mission to rid the U.S. of all drugs—including cannabis. As a result of the sensationalization of Anslinger’s rhetoric and the fear mongering it produced, the nationwide attitude towards cannabis began to fall in line with Anslinger’s, he even testified before Congress in hearings for the Marijuana Tax Act. His influence played a major role in the introduction and passage of the Tax Act which outlawed possessing or selling pot.

But as the years progressed, studies revealed that there did exist serious and often long-term consequences associated with the use of cannabis, hashish and similar cannabinoids. Perhaps basing their findings on these theories produced a period of mass hysteria seeking total prohibition and in fact making its possession felonious in 1937 as per Anslinger and his crew. Originally published in 1966 in *The Saturday Evening Post*, this revived post stated the controversies associated with how benign marijuana use was, but in particular when compared to “harder drug” use such as heroin or cocaine:

To many college students, marijuana is illegal but safe, and heroin is dangerous, and therefore uncool. The few students who use heroin are referred to as “sickies” by even the most Bohemian of students. Most important, they suddenly become “square.” They have allowed the body to dominate, and they have exhibited vulnerability and dependence; cool people do not depend. Most important, with their glazed faces and drug obsession they scare even the habitual marijuana users, or “potheads.”⁸

More recent research however, suggests that although perhaps not as dangerous as “harder drug use” there do exist serious concerns about extreme usage patterns and the initiation of other drug use as a result of marijuana initiation and escalation. The tetrahydrocannabinol (THC) content, or potency, of marijuana, as detected in confiscated samples, has been steadily increasing from about 3% in the 1980s to 12% in 2012.⁹ This increase in THC content raises concerns that the consequences of marijuana use may be worse now than in the past.¹⁰

Over the past few decades, the amount of THC in marijuana has steadily climbed; today's marijuana has three times the concentration of THC compared to 25-years-ago. The higher the THC amount, the stronger the effects on the brain—likely contributing to increased rates of marijuana-related emergency room visits.¹¹ The substance abuse and mental health services administration (SAMHSA) further reports that contrary to popular belief, marijuana is, in fact, addictive. Research studies show that one in six people who start using the drug before the age of 18 can be-

come addicted.¹¹

In addition, this increase in THC potency over time also raises questions about the current relevance of the findings in older studies on the effects of marijuana use, especially studies that assessed long-term outcomes. The unfortunate reality however, is that THC ingested while vaping or consuming edibles is more addictive than originally thought, and its continuous use can expose teens to very high-levels and often dangerous, even life-threatening concentrations of the substance. Indeed, early and regular marijuana use predicts an increased risk of marijuana addiction, which in turn predicts an increased risk of the use of other illicit drugs.¹² Researchers have even demonstrated that such marijuana use in teens, including edibles, puts the adolescent at a higher risk of schizophrenia or psychosis.¹³ Over the years epidemiological studies have also demonstrated that people who use marijuana early in life have an increased vulnerability for addiction to other substances.^{9,14,15} These studies suggest that the earlier a teen begins to use cannabis, the more at-risk s/he may be for developing a cannabis use disorder, and studies support this notion.¹⁶ In 2018, more than 11.8 million young adults reported marijuana use in the past year.¹⁷ In recent Congressional testimony, Hearing on Cannabis Policies for the new Decade,¹⁸ the National Institute on Drug Abuse (NIDA) Director Dr. Nora Volkow reported that frequent cannabis use during adolescence is associated with changes in areas of the brain involved in attention, memory, emotions, and motivation leading to adverse cognitive and behavioral effects.

Additional studies focusing on tobacco use among teens, the first most notably conducted by the Journal of the American Medical Association, have shown definite correlations between juvenile e-cigarette use, and the likelihood of later traditional cigarette use. “Research tells us those teens who vape may be at risk for transitioning to regular cigarettes,” according to Volkow, “so while we have celebrated our success in lowering their rates of tobacco use in recent years, we must continue aggressive educational efforts on all products containing nicotine.”¹⁹ Teens using e-cigarettes may be more likely to start smoking tobacco, thus the need to monitor this phenomenon closely as well. Studies have also shown that the adolescent brain is not fully developed, further complicating an already exacerbated issue. When teens vape marijuana, they experience dangerous side-effects which become heightened especially when they do so with alcohol and other drug substances.²⁰ Research has shown that vaping tobacco also causes an adolescent’s brain to become more susceptible to addiction to other drugs, such as methamphetamine and cocaine.^{17,21} Recently, scientists have reported seizures in teens as a direct result of increased vaping and upon closer examination documentation of a slight, but noticeable, increase in these reports.²²

The most recent advances within social media and enhanced communication streams have had deleterious effects on getting teens to understand and appreciate the immediate and lasting dangers of vaping and ingesting drug-laced edibles. Marketing efforts targeting teens have only exacerbated the problem. As a result, addressing these issues has become even more challenging, despite teens’ willingness to be forthright in reporting their use of both substances.²³ For years, beliefs that drugs are “cool” or harm-

less indicate that adolescents will be more likely to use drugs.²⁴ As marijuana legalization increases in momentum, it also increases its availability and will likely create the introduction of new formulations of marijuana used for vaping and edibles with potentially higher potencies.⁶ Many teens believe and have reached consensus among their peers, that marijuana use is safer than alcohol, and the use of other drugs. Many state that it is “*not harmful because it occurs naturally,*” or their beliefs that it’s uses in various forms are non-addictive.²⁵ Results from the monitoring the future (MTF) survey in 2018 showed a very dangerous trend; it is estimated that three million teens were vaping, 30-40% of which were vaping marijuana as well.²⁶ Alarming, the MTF 2019 survey, reported that vaping showed the second largest one-year jump ever tracked for any substance in the 45-year history of the survey.²⁷ So indeed the facts are, that these challenges are dangerous, and very real.

Our present study reviews teen respondents’ answers to questions administered on the third iteration of the adolescent Substance Abuse Subtle Screening Inventory (SASSI-A3). These questions were directly related to vaping, nicotine use, and the ingestion of edibles containing drugs. This article focuses on the teen self-report patterns of tobacco use, vaping and edibles sections of the data; thus, we limited our study scope to questions related only to these topics. Initially, we review our study methods, protocols and procedures. Then we will examine some of our findings; offer our conclusions and suggest future directions in our hope that we can assist in helping stem the tide of these dangerous use patterns.

METHODS

Sampling Procedures

The SASSI Institute engages in research to evaluate the psychometric properties of our various substance use measures and to enhance their accuracy and clinical utility. This section reviews our sampling and analyses procedures for collecting data *via* administration of SASSI-A3 for our validation project. For this part of the study, we reviewed only questions about the teens who acknowledged use of tobacco, vaping and edibles. We discuss how their responses demonstrate the current usage patterns in teens in treatment, *versus* those who are not in treatment. You may also contact The SASSI Institute for reprints of articles that present additional procedural and more elaborate methodological discussions on the development and validation of the adult SASSI-4 and the adolescent SASSI-A3 substance use disorder screening inventories.^{23,28}

Human Rights Protections and HIPAA Adherence

Overall Risk/Benefit Assessment: This project entailed minimal risk to participants in that study participation consisted of providing anonymous responses on a screening survey regarding alcohol and drug-related experiences and attitudes. The risk of harm is thus no greater than would be encountered in standard psychological testing. In addition, treatment participants were invited to participate in the study by assessment professionals who use the SASSI screening survey in their practices and who have an established professional relationship with the respondent. Clinical licensure,

certification, and code of ethics require that counselors consent their clients for treatment with full disclosure of expectations and rights in the client-counselor relationship, including the counselor’s agreement to act in the best interest of the client. Further, both parents and teens decided whether to provide permission and assent to study participation. Standard of care for clinical participants was to answer the current version of the adolescent screening survey, SASSI-A2, as part of the clinical services their counselors presently provide. As in other behavioral survey research, participants may, on occasion, feel uncomfortable answering some of the survey questions. But as further protection and to mitigate against these risks, we gave participants the option of skipping any question/s or withdrawing from study participation at any time without incurring any penalty or rescinding any rights to which they would otherwise be entitled.

Participants

Our total sample pool consisted of 1,065 teenagers between the ages of 13 and 18 (mean=15-years-old). Fifty-eight percent were Male, 42% Female. Teens in this group identified themselves as White (54%), Black/African American (13%), Hispanic (22%), American Indian or Alaskan Native (1%), Asian, Native Hawaiian or Pacific Islander (3%), Multiracial/Other (5%), and 2% did not answer. Three percent reported being employed full-time, not employed (77%), part-time (17%), volunteer (2%), and 1% did not answer. Eighty percent reported living with their parents, living with other relatives (4%), living with friends (<1%), in a group home (1%), in residential treatment (8%), and 7% did not answer. Shown in Table 1 are the client demographic characteristics broken down by treatment sample (n=515) and non-treatment sample (n=550). The following analyses include percentages for the entire teen sample (n=1065) and separated out by treatment and non-treatment sample n’s unless otherwise specified.

All cases were provided by clinicians working in service settings throughout the U.S. Census Regions (Northeast, Midwest, South, West). These professionals served in a variety of venues including substance use treatment and criminal justice programs, community corrections, private clinical practices, behavioral health centers, and social service organizations. All clinicians were qualified SASSI users who administered the SASSI-A3 *via* the SASSI Institute SUD web-based screening application. In appreciation for the use of their anonymous responses, The SASSI Institute made a \$5 donation to the teen’s choice of a youth or pet charity.

Non-treatment participants (n=550) were community respondents aged 13-18 from throughout all U.S. Census Regions who have never been in treatment for substance use disorders. These responses were collected by the contract research organization Ipsos Public Affairs (Ipsos) from their registered KnowledgePanel®, which is designed to be representative of the United States. Ipsos allowed for expedient, random, and representative community samples to be collected in a short time frame. Upon completion, qualified parents of the teen completing the survey received a cash-equivalent incentive worth \$5 to share with their teen.

Table 1. Participant Characteristics of the Treatment and Non-Treatment Samples

Characteristics	Treatment (n=515) %	Non-Treatment (n=550) %
Clinical Diagnosis		
Mild substance use disorder	17.67	
Moderate substance use disorder	14.56	
Severe substance use disorder	34.76	
Criterion negative	33.01	
Gender		
Male	65.44	50.91
Female	34.56	49.09
Missing	0	0
Employment Status		
Employed/Full-time	1.17	5.45
Employed/Part-time	12.82	20.91
Not employed	84.66	70.00
Volunteer	1.36	3.45
Missing	0	0.18
Race/Ethnicity		
Black or African American	17.28	9.45
American Indian or Alaska Native	0.97	1.45
Asian, Hawaiian or Pacific Islander	0.97	5.64
Hispanic	29.90	14.00
White or Caucasian	43.69	62.73
Multiracial	5.83	4.91
Other/Unknown	1.36	1.82
Living Situation		
Parents	60.39	98.18
Other Relatives	7.77	0.91
Friends	0.39	0
Group Home	1.75	0
Residential	15.53	0
Other/Unknown	14.17	0.91
Education (years)		
M	8.54	9.38
SD	1.57	1.71
Age (years)		
M	15.41	15.37
SD	1.42	1.73

Data Collection Procedures for Teens in Treatment for Substance Use Disorder

We facilitated a separate research module on the SASSIOnline platform in order to allow participating counselors to administer the research survey to participants. We encrypted all data transmissions and de-identified client information so that all identifiable client information was maintained as encrypted data. To further protect the privacy of study participants and confidentiality of the study data, each administration of the screening survey was automatically assigned a SASSIOnline platform-generated sequence of characters to readily and singularly identify each case for the duration of the

study. Parental consent and teen assent were verbally obtained prior to participation by their counselor. Respondents were also given the option to discontinue their participation at any time or have their completed survey withdrawn from the study by informing their counselor. Our entire research protocol and procedures were reviewed by the Advarra Institutional Review Board (IRB) prior to study commencement to ensure that participants were treated in accordance with HIPAA guidelines and regulations.

Data Collection Procedures for Teens Not in Treatment for Substance Use Disorder

The SASSI-A3 survey was conducted on Ipsos’s KnowledgePanel®. Our target population consisted of non-institutionalized adult parents of 13-18-year-olds residing in the United States. Parents were asked to complete an initial battery of questions about their household and teens within the household. If qualified, parents were then asked to pass the survey to a randomly-selected age eligible teen who completed the remainder of the survey. Ipsos randomly sampled households with at least one eligible adult. Selected panel members received an email invitation to complete the survey and were asked to do so at their earliest convenience.

Measures

Research Version of the SASSI-A3: Participants completed the research version of the SASSI-A3 which consisted of 87 true-false items and 24 face-valid alcohol and other drug frequency items that measure how often (0=never, to 3=repeatedly) respondents have engaged in and experienced effects from the use of alcohol and other drugs within a specified time frame. There are two possible outcomes: “high probability” or “low probability” of substance use disorder (SUD). Additional methodological considerations, procedures and findings are reviewed elsewhere.²³ For the present study; we focused only on teen responses to direct questions about vaping, edibles, and tobacco use and not the SASSI-A3 screening outcome.

Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition:

If participants were in treatment, clinicians’ diagnoses regarding the presence or absence of substance use disorders were obtained in accordance with the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) symptom criteria.²⁹ Counselors indicated the presence or absence of the 11 DSM-5 SUD symptoms, and specified for what class of drug the symptom was evidenced within the time period (past 12-months, lifetime) for which they conducted each diagnostic evaluation.

DATA ANALYSIS AND RESULTS

Teens were asked to report their age at first use of alcohol or drugs ranging from less than 12 through 18. The mean age reported for the entire group (n=1065) was 14, treatment sample (mean=13), and non-treatment (mean=14). Forty-one percent of the teens reported having never tried drugs or alcohol, treatment sample (5%), and non-treatment sample (75%). Also reported was age when they started using alcohol or drugs frequently. The mean age for

frequent use was 15, treatment sample (mean=14), and non-treatment sample (mean=16). Sixty-seven percent reported that they have never used regularly, treatment sample (37%), and non-treatment sample (95%). We also inquired about their frequency of alcohol and drug use. Table 2 reviews responses for the sample groups, as well as totals for the entire sample.

Table 2. Current Alcohol or Drug use for the Treatment and Non-Treatment Samples*

Characteristic	Treatment (n=515) %	Non-Treatment (n=550) %	Combined (n=1065) %
Frequency			
More than twice a week	20.6	1.3	10.6
About twice a week	7.6	0.4	3.8
About once a week	4.9	0.9	2.8
Between 1 and 3 times a month	10.5	2.4	6.3
Less than once a month	17.7	7.3	12.3
None	38.8	87.5	63.9
Missing	0.0	0.4	0.1

*"Current" refers to active use at the time of survey completion.

Counselors working with teens in the treatment sample completed a DSM-5 diagnostic checklist for the purpose of diagnosing the client with or without a SUD. Sixty-seven percent of the teens were diagnosed with a SUD and 33% were not. Preferred drug of choice was also provided on the 67% diagnosed with an active SUD (n=345); with the majority (90%) diagnosed with a Cannabis Disorder followed secondly by an Alcohol Use Disorder (20%). Other SUD diagnoses included Hallucinogens (6%), Inhalants (1%), Opioids (4%), Sedative/Hypnotics (8%), Stimulants (7%), and 5% within the "other category." Note that some teens were diagnosed with more than one SUD. Of the teens diagnosed

Table 3. Current Tobacco, Edible, and Vaping Use for the Treatment and Non-Treatment Samples*

Characteristic	Treatment (n=515) %	Non-Treatment (n=550) %	Combined (n=1065) %
Tobacco User			
Yes	18.8	1.5	9.9
No	81.2	98.2	90.0
Missing	0.0	0.4	0.2
Edible User			
Yes	23.9	2.4	12.8
No	76.1	96.4	86.6
Missing	0.0	1.3	0.7
Vaping			
Yes	52.6	6.0	28.5
No	47.4	93.6	71.3
Missing	0.0	0.4	0.2

*"Current" refers to active use at the time of survey completion.

with any SUD, 28% reported tobacco use, 34% used drug-laced edibles, and 68% vaped various substances (including cannabis). Table 3 depicts use of tobacco, edibles, and vaping for the entire sample. The teens also reported vaping frequency. In the combined sample, "never vaped" was the most reported at 71%; for the treatment sample (47%), for the non-treatment sample (94%). Table 4 depicts frequencies for other timeframes.

Table 4. Frequency of Vaping During Entire Life for the Sample Groups

Characteristic	Treatment (n=515) %	Non-Treatment (n=550) %	Combined (n=1065) %
Frequency			
Never	47.4	93.6	71.3
Once or twice	22.9	4.0	13.1
Several times	16.1	1.8	8.7
Repeatedly	13.6	0.2	6.7
Missing	0.0	0.4	0.2

The items regarding the use of tobacco, edibles, vaping, and vaping frequency are included as part of complete scales on the SASSI-A3 questionnaire. These scales are: face-valid other drugs (FVOD); symptoms (SYM); and subtle attributes (SAT). Reliability analyses were conducted on these scales and demonstrated the following coefficient omegas: FVOD 0.95, SYM 0.87, and SAT 0.70.

Additionally, the two sample groups were asked about whether or not they "support marijuana legalization." Sixty-four percent of the teens in treatment supported legalization and 50% reported their family and friends use it. Conversely, thirty-nine percent of teens not in treatment supported legalization, and 18% reported use by family and friends.

We then split the sample groups (treatment and non-treatment) into sub-samples based on their states' mandates on "legality of cannabis" (medical and/or recreational) to review their corresponding use of edibles and vaping. In states where usage is legal (by adults and/or with a prescription; n=80), 15% of treatment teens acknowledged using edibles, and 39% reported vaping. Within the non-treatment teen sample in those states (n=390), 3% acknowledged using edibles, and 6% reported vaping. In states where cannabis is illegal (n=435), 25% of the teens in treatment reported edible use and 53% reported vaping. Interestingly, none of the non-treatment teens in those states (n=210), acknowledged using edibles, while only 2% reported vaping.

DISCUSSION

This study's objective was to review teens' acknowledged use of tobacco, edibles, and the vaping of various substances in adolescents who were both in treatment, and not in treatment. The most common age of onset reported by the "non-treatment" group for alcohol or other drugs was fourteen years of age. The treatment group reported a slightly younger age of onset, 13. Teens in treatment also reported younger frequent onset of use patterns (14 years of age) than their non-treatment counterparts (mean=16).

The likelihood of developing a SUD is greater for those who begin using in their early teens and marijuana and tobacco are usually the first addictive substances people consume.¹⁶ Of the teens diagnosed with a SUD in our treatment group, 90% had a cannabis use disorder and 47% of the teens in treatment reported vaping. Not surprisingly, and in accordance with our previous studies, alcohol use disorder was the second most common diagnosis.²³

Teens within the treatment sample were almost twice as likely to support legalization of marijuana than those who were not, and half of them reported that their friends and family use marijuana. The use of drugs by family members and their open-minded attitudes toward use by teens predict a greater risk of adolescent drug use.^{28,30,31} There are presently 34 states where marijuana is legal for medical purposes and 12 of them have also legalized adult recreational use. Teens in treatment in states where marijuana is legal, reported 5 times more drug-laced edible usage and 6 times the rate for vaping, than the non-treatment teen residents of those states. In states where marijuana is illegal (with the exception of low-level THC content cannabidiol (CBD) oil), treatment teens reported 25 times more drug-laced edible usage and 27 times the vaping rates than their non-treatment counterparts. By contrast, when reviewing teen drug use as a whole, those in states where marijuana is not legal, were 3 times more likely to ingest drug-laced edibles, as well as vaping.

Items regarding the use of edibles and vaping are part of the SASSI-A3 FVOD Scale and the SYM Scale. Endorsement of these items demonstrates the teens' willingness to disclose their behavior and usage. Discussion between the client and counselor will be most effective when discussing their acknowledgement of use when the conversation stimulates the client to increased disclosure and greater self-awareness.

LIMITATIONS AND FUTURE RESEARCH

The instrument we used to collect this data, SASSI-A3, is an alcohol and drug screening instrument designed to be used in a pre-diagnostic fashion as an additional source of information during practitioner assessment procedures, to identify teens in need of further evaluation for the presence of an SUD and the potential need for treatment. This is particularly true for teens that may be in denial about their use patterns or may be reluctant to admit such usage. The SASSI-A3 is not designed to be a screening tool used to identify teens who are solely at risk for vaping or edible use. The data used for this study was comprised of a convenience sample we intentionally extracted from the larger validation study, and solely for the intent we outlined earlier. In future studies we hope to investigate the need for a scale to identify possible vaping and dangerous edible usage, incorporating additional interview items to focus specifically on these issues. Because the question items for the present examination were entirely face-valid, it is likely easier for teens to "fake-good" on their responses.²³ As a result, future studies should address the inclusion of subtle items in order to establish greater concordance with client self-report data.

Data used to validate the screening instrument were submitted by practitioners engaged in ongoing programs of substance

use assessments and screening with teens. Pursuant to IRB regulations and mandates, incarcerated teens, or those in Foster Care were not included in this study. Research including these settings would extend the generalizability of current findings to these populations, perhaps providing a more holistic understanding of these findings for larger groups of teens.

CONCLUSION

The signs and symptoms of teen alcohol and drug usage can mimic typical teen behavior, so understanding the typical age for the onset of the use of substances can aid in prevention education planning. Early intervention, during very early teen years, has shown to be critical as substance use and its ill effects worsen during later teen years.^{32,33} In addition, those that begin early are more likely to continue abusing later in life, further impairing cessation possibilities.

Generally, marijuana grown today has THC concentration levels that are 15 to 25 percent higher than in previous years. In addition, when used in edibles, it can produce a more dramatic and longer lasting high than when smoked or vaped.³⁴ Through early intervention, educating teens in all states about the dangerousness of increased THC concentrations and their associated dangers, such as the risk of accidental over dose is imperative. The American Family Physician provides an overview with a list of talking points for parents and teens about the various dangers and misconceptions surrounding teen marijuana use.³⁵ Although not a specific objective of the present study, we highly recommend that parents and caregivers review this, and similar publications for the credible ways of addressing these very real and concerning issues.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

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Review

Gestational, Perinatal and Neonatal Loss: Emotional and Psychological Consequences on Mothers, Fathers and Healthcare Professionals

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ABSTRACT

The current article contains compilation of significant contributions done by theorists over the years about the phenomenon of perinatal loss. The objective of this paper is to provide information about important emotional and psychological consequences on parents who suffer stillbirth. This article addresses identity issues of the mother, father, and their relationship as a couple. It also provides information on the psychological, emotional, and legal aftermath of healthcare professionals who assist during the process of loss.

Keywords

Patient-child; Healthcare professionals; Child death.

INTRODUCTION

The death of a loved one can extraordinarily affect those who suffer the loss, with negative consequence on the psyche. Some psychologists have indicated that the psychological trauma of loss is analogous to the traumatic experience of being severely burned or wounded.^{1,2} The loss of a loved one is, in itself, a painful event. Beyond being a painful event, it is categorized by one of the most complex and stressful experiences a parent can suffer,³⁻⁵ and could be considered a devastating event.⁶ This type of loss is especially intense when the loss of an unborn child is involved. It is peculiar different from other types of losses; due to the unnatural process that negates the creative biological cycle for which parents-to-be are not prepared. Also, this type of loss is not acknowledged by society, which may influence a mother to remain silent about her suffering, increasing mental and emotional distress.⁷ This matter is not recent; over the years, authors have made significant contributions to our understanding of the subject, suggesting the need for specialized attention.

de Madinabeitia⁸ refers to the first article about the

suffering of stillborn parents published in 1959. The article reviewed the difficulties that an obstetrician had when facing fetal death before, during, and after childbirth. It demonstrated that the doctors' suggestion that as soon as the mother woke up from anesthesia, she would be told about the birth process but avoid mentioning seeing or holding the baby. The doctor would suggest that the mother have another baby as quickly as possible, giving her happiness and self-confidence.

In 1968, Bourne drafted an article on the psychological effects of the deceased baby in the women and their doctors. He suggests that the deceased could become a type of "blind spot" for the professionals (*professional blind spot*) that go through the experience, pretending that it had not occurred at all. The medical professionals kept absolute silence about the occurrence and would sedate the mother in the stillbirth with the intention of "avoiding the pain" of seeing the baby lifeless. When the mother woke up, the body had already been taken out of sight. As previously mentioned, the most common recommendation for these cases was to suggest a new pregnancy for parents to forget the passing.

Further, Kennell et al⁹ published about the grief of neonates. The paper highlighted distinctive elements such as sadness, poor appetite, difficulty sleeping, and concern with the lost child, and the inability to return to the activity of daily life. Benfield et al¹⁰ studied the responses of grief in first-births of neonates in vital risk, and in that same year, work on the specific management of stillbirth was published.

Peppers et al¹¹ proposed other elements of grief: difficulty concentrating, anger, guilt, refusal to accept reality, temporary confusion, exhaustion, lack of energy, depression, and repetitive dreams with the deceased baby. After this contribution, the interest in attending the perinatal loss according to its particularities began.

Callahan et al¹² stated that the perinatal loss is different from others because of the *“refusal to talk about what happened because the cause of the death is often unknown and because of the intense guilt it generates.”* Addressing this issue, as described, was called the unrecognized bereavement. That same year, Kirkley-Best et al¹³ pointed out *“without proper study, professionals are destined to follow the fashions of popular books about grief, without meeting the specific needs of the parents of stillbirths.”* To facilitate the elaboration of grief and reduce the guilt it generates in the parents, they recommended the birthright to see and hold their baby. In addition, they proposed to develop support groups for those affected.

Leppert et al¹⁴ documented that women experience intense grieving reactions during the first six weeks after the loss. The results reflected that guilt seems to be the predominant feature in the sample's grieving response, with manifestations regarding what they did or did not do. In a study conducted, the mothers reported that they thought that having performed behaviors such as exercising, having sex, suffering a fall, or smoking, appeared to be the possible causes of loss, resulting in self-guilt behaviors. However, the literature indicates that physical exercise or sexual intercourse during the pregnancy process, without precautionary contraindications, is not considered a risk factor.

Rando¹⁵ considered the importance of paying attention to losses, especially those lacking social recognition. This type of recognition does not receive the benefit of status and social support that is usually given to people who suffer from any loss of a loved one. At that time, it was common to think that a woman who loses a child in the gestational stage of pregnancy would be “relieved” or “exonerated” of the grieving process in comparison to those who suffer a neonatal loss. However, in a study by Linberg¹⁶ with a sample of 20 women who had experienced loss between 12 and 24-weeks of pregnancy/gestation, it was observed that they had the same grieving characteristics as those who had suffered a neonatal loss. Some of the symptoms were: despair, anguish, guilt, social isolation, loss of control, feelings of depersonalization, somatization, anxiety about death, courage, and recurring concerns. The following will present a compilation of authors who contributed to the loss theme and their respective contributions. For instance, Lindemann¹⁷ provide and publish a complete description of the concept of grief, his contribution was based on collaborating and working with relatives who were lost in the nightclub fire

called Coconut Grove in 1942 where 500 people died.

An anonymous author published in 1959, the first article on the suffering of a perinatal loss of a first born. This article reported the difficulties that an obstetrician had when facing fetal death before, during, and after childbirth. At that time, the doctors used to recommend that the mother have another baby as soon as possible, with the aim of pursuing “happiness” and “replacing” the deceased baby. Bourne¹⁸ contributed to the physiological effects of stillbirth in women and their doctors. He wrote about the *“professional blind spot,”* in which professionals pretended that nothing had happened. Kennell et al⁹ published about the grief of newborns and highlighted feelings experienced by the mother such as sadness, changes in appetite, alteration of sleep patterns and inability to perform the functions of daily living. Moreover, Benfield et al¹⁰ studied the responses of grief in the firstborn of the neonates. Another author that provides more information on the topic was Rando¹⁵ proposed six phases in the bereavement process: (1) recognize the loss, (2) react to separation by remembering, re-experience the deceased, (3) remember and experience pain, feel, identify, accept and find ways of expression for psychological reactions to loss, (4) give up the attachment with the deceased and previous vision of the world, (5) readjusting to the new world adaptively without forgetting the above and developing a new relationship with the absent as well as new ways of being in the world, (6) reinvest energy in the present and look to the future. This author also pointed out the importance of losses that lack social recognition, such as perinatal loss. Finally, Neimeyer¹⁹ proposed a new vision of grief. Defined grief by reconstructing the meaning of the loss, and highlighting the active process. Also, he indicated that the grieving process is determined not only by the emotions, but by the relational context and the meanings the grieving person gives to the grief and to the restructuring after the loss. The author established the following steps in the process: (a) avoidance, (b) assimilation, and (c) accommodation. The contributions made by experts on the subject reveals some of the consequences that the loss can cause to those involved. In addition to the aforementioned sequels, such losses can disrupt other related areas such as motherhood, fatherhood, and couples' relationship.

MATERNITY AND LOSS

Women who suffer the loss of their baby may experience a variety of symptoms such as shame, guilt, and a sense of failure.²⁰ Of all these symptoms, guilt is the most common because they feel they could have done something to prevent the death of their.²¹⁻²⁶

This feeling of guilt can come from the social perception in which parents are expected to be the ones who take care of their children and provide them with protection.²⁷ In addition to the feeling of guilt, both the mother and the father may experience feeling, shame, desire to die, and suffer the stigma because of their feel they.^{28,29}

The intensity of the symptoms that each person experiences can be varied; individuals who are predisposed to feel shame and guilt often experience symptoms with higher intensity.^{26,29} Dur-

ing pregnancy, if a woman suffers the loss of a child, her identity can be disrupted. An explanation for this is that the mother feels that her baby is part of her body and cannot differentiate it from herself. This process is known as “the embodied nature” of the loss. She understands that if the creature is within her body, it is part of herself; therefore, it will present difficulty in seeing the creature as an individual being.^{11,29,33} In advanced gestation stages, the mother experiences physiological changes that help her see her child as an independent and differentiated being from herself. These changes contribute to the adoption of a protective role. When a woman suffers a loss in the advanced stages of her pregnancy, she may feel that she failed to care for and protect her child. When this happens, she may experience feelings of guilt. Also, during pregnancy, because the maternal attachment has been strengthened, the woman may experience other sequelae in the future, such as attachment problems. This type of sequelae could be seen reflected in relationships with other children, partners, and social interactions.

Stryker³⁴ creator of identity theory, indicated that identities are ordered based on different levels of hierarchy. Within this hierarchical structure motherhood occupies a higher place than marriage or a career.^{35,36} It is essential to consider whether motherhood is a significant value. If so, the woman will be assigning her identity in being a mother and tend to focus and commit to everything related to motherhood. Even before conception, she could be directing her efforts to procreate, which could be realized consciously or unconsciously.³⁷⁻⁴⁰

According to Smith⁴¹ when a woman manages to get pregnant, due to her physical changes, she perceives that she already “*ascended to being a mother.*” In addition, interpretation of the physiological changes in pregnancy concern women since pregnancy assume their new maternal role.^{29,41} For women who face difficulty that may prevent them from fulfilling this role, such as the loss of a baby, will result in significant psychological distress. The degree of commitment that women to with their maternal identity will influence her psychological distress.^{42,43} Besides, in confronting an interruption in the gestational process, women will be exposed to losing the social status that would entail being a mother.⁴⁴ It could be influenced by the socio-cultural values woman holds.

From the intrapsychic perspective of Freud,⁴⁵ the psychological impact that the mother goes through is due to the “lost object” to which mourning should be kept. He described this stage as one of great importance due to the loss of psychic energy stemming from the “*lost object.*” Also, the mourning process could be more complex and difficult without the presence of the baby’s body.

When a woman becomes pregnant after having suffered a loss, she may face emotional and psychological sequelae. A study conducted by Gaudet²¹, Rivera²⁷ with 96 pregnant women who experienced perinatal losses, revealed the presence of high-levels of anxiety in comparison with the control group. The study identified four factors of risk that could provoke a woman to experience anxious symptomatology and prenatal grief in the period after a loss, such as (1) pregnancy after a stillbirth, (2) finding herself in the same stage of pregnancy where previous stillborn was lost (3) that

the loss of the baby has occurred in the last stages of gestation, and (4) the number of losses experienced.

Women expecting a first child can manifest feelings of fear related to the pregnancy. For example, in a study with first-time mothers, it was found that they show greater worry and attachment with their baby compared with a group of mothers with experiences of pregnancy.²⁷

PATERNITY AND LOSS

When a baby dies, generally, it is perceived that the mother suffers the loss in a way more severe and intense than the father.⁴⁶ However, this loss can affect the father as well. The impact on the father can be related to the level of involvement that he has had during the gestational and perinatal process.

The participation of men in the process of the pregnancy, childbirth, and puerperium, has changed over the years. A few years ago, fathers faced paternity when their first child was born, or sometimes, when the child had already grown up. Men used to practice a traditional paternity, which involved the responsibility of being family’s economic provider. This type of paternity excludes fathers from involvement in the care and early development of their children, awarding women such tasks.^{47,48} This social construction has led to the avoidance of affective involvement with the pregnancy, and suppression of feelings in front of others.^{48,49} However, through the years, a “*new sense of paternity*” in which a man no longer is considered only as provider of the family but also is involved in tasks related to domestic works and the care and development of his children Mota et al⁴⁸ and Ochoa et al,⁴⁹ mentioned that this could be due to “*new form of configuration of families in which they present new practices of parental care, instead of traditional roles. These changes have allowed a different distribution of task and responsibilities.*”⁴⁸

Several researchers^{48,51,52} have indicated that men, especially the younger generations, have increased their participation in terms to the caring of children. Through the years, it has become common to see generations of young men participating in prenatal care activities, preparation childbirth, and involvement in the immediate puerperium. A father has been able to be present at labor and at times, has been able to cut the umbilical cord and even witness the expulsion of the placenta. Studies⁴⁸ indicate that a father who witnesses his child’s birth has the opportunity to obtain a more intimate relationship with his child that those who “*do not witness it.*” These authors explained that this breaks the cultural expectations that minimize the importance of men in a women’s gestational process due to ignorance about the emotional and cognitive aspects of fatherhood.

Like women, men also face critical psychological processes during the gestational process of their partners. Maldonado-Duran et al⁵³ indicate that parents accomplish some psychological tasks during the pregnancy. These are the following: (1) resolve each other’s ambivalence towards pregnancy and the future child, (2) establish an attachment with the fetus, (3) redefine the identity of the man becoming a father, (4) achieve internal conviction that

he can take care of the fetus first and then the baby, (5) give support to his partner and prepare a psychological and real “nest” for the child and (6) assume the new responsibilities as a father.

Regarding the emotional aspect, investigations⁵⁴⁻⁵⁶ indicate that men may experience fears related to the behavior that their partners will exhibit during childbirth, their ability to play the new role, and their relationship as a couple. This tends to happen when a man assumes this role for the first time in his life.

The fear parents face may increase when they receive the news that the child they expect has low probability to live or does not have vital signs. This news can have an emotional impact on men, especially Latin men. Osorio⁵⁷ has mentioned that for a Latin man, the paternity is motivated by the desire to perpetuate his family and kin through their descendants. When a man experiences the loss of his child, it involves the loss of his transcendence and his future. Besides, the lack of social recognition of the loss makes it more challenging due to the lack of social support that can prolong the mourning process.

Palaces et al⁵⁸ indicate that men that confront the death of their child will go through the following phases: (1) paralysis, (2) longing, (3) disorganization, and (4) reorganization. The first phase refers to when a man feels distant from others. He usually has thoughts of disbelief, thinking “*this cannot be happening*” or “*this cannot be true.*” Also, he can suffer changes in sleep, appetite, or experience difficulty concentrating. The second phase is about the need and the desire to become a father. Some of them who get exposed to friends who have children and do activities with them can feel excluded. The third phase is the longest one and is characterized by lack of control, anxiety, and hopelessness. The fourth and last phase is about acceptance and personal repurposing of one’s life. It is assumed that this phase can take a couple of years. It is essential to point out that these phases are not universal. Also, if these manifestations occur, they do not necessarily happen in a particular order because each loss is an individual phenomenon. Therefore, they can only be utilized as a reference point for educational purposes and bring perspective to the process of loss.

When a father experiences a loss and faces the grieving process in terms of its impact on the “self,” it could be less difficult than what the mother experiences.⁵⁹ Fathers, unlike mothers find themselves excluded from the differentiation process. Nonetheless, when fatherhood is valued by the father he also experiences a sense of frustration and feelings of failure in protecting his child when the loss occurs.

Lang et al⁶⁰ indicate that men who experience mourning can manifest aggressiveness, anxiety, somatic and psychotic symptoms. Other than these behaviors, suppression of feelings tend to occur to conform to social expectations and to show themselves as “*emotionally strong.*”

A study done with 3,503 fathers of a stillborn baby, showed that half suppressed their feelings because they believed society wanted them to forget their baby and move on to another pregnancy as soon as possible.⁶¹ When fathers suppress their feel-

ings, stress begins to mount and can create maladaptive behaviors that prolong the natural grieving process of a loss. These responses can prevent the father from seeking help. At times, men find themselves immersed in supporting their partners while feeling alone and fearful and avoid asking for support. Literature suggests that man’s natural suppression of feelings works as a defense to conform to society’s expectations. It could cause risky behavior that may even lead to legal problems. Conway et al⁶² suggests that some of these legal issues tend to be the use and abuse of alcohol and other narcotics. Additionally, men may worry about the behavior of the mother during childbirth and their capacity to perform as a father and partner.⁵⁴⁻⁵⁶

THE COUPLE'S RELATIONSHIP AFTER THE LOSS |

The death of a child can influence the relationship between the couple. Literature shows that stillbirth is a risk factor in the rupture of a relationship.⁶³ A study conducted by Gold et al,⁶⁴ Koopmans et al⁶⁵ revealed that stillbirth increases the probability of a divorce by 40%. In another study conducted by Shreffler et al,⁶⁶ it was found that relationships are four times more likely to dissolve after a stillbirth than relationships that do not suffer perinatal loss.⁵⁹ It should be noted that these studies do not consider other factors in the relationship.

However, couples that face emotional and psychological challenges of a stillbirth can develop a stronger relationship.⁶⁷ This may be due to the different elements that support the relationship such as communication, trust and emotional closeness. Perinatal loss creates vulnerability in the couple, and with the right mix of the elements mentioned above can evolve a better bond within the relationship. Also, couples that rely on each other during the grieving process tend to report fewer intense grief reactions, and a higher level of satisfaction in the relationship.⁶⁸⁻⁷⁰

Barr⁷¹ indicated that fathers have fewer symptoms of anxiety than mothers. This outcome does not mean that the loss is less significant to them; it could mean that they may have different ways of grieving. Fathers also tend to have a delayed response to the event of a stillbirth. They usually carry out funeral arrangements and handle the final processes. In the aftermath, they tend to submerge themselves in work to provide for the family. They also tend to fabricate a false sense of “strength” to try to support their significant other.⁷¹ This creates in fathers a sense of responsibility for the emotional stability of the relationship.⁵ Nevertheless, due to the fact the men and women mourn in different ways, a sense of loneliness overcomes the process because each of them may not quite comprehend what the other is feeling.

A study by Cacciatore²⁸ and Campbell et al,⁷³ revealed a relationship between self-condemnation, shame, guilt, and parental mental health. The study was done online with 2,232 women who suffered a stillbirth and were followed over three years. It revealed that 24.6% of women reported self-condemnation and a significant increase in depression and anxiety.⁷⁴ Barr²⁶ conducted a study with couples who suffered perinatal loss, and it showed that parents felt guilty for surviving their children. This sense of guilt will eventually be reflected in the grieving process.

Parents who suffer a stillbirth also manifest frustration with the lack of understanding and support of healthcare professionals who assist in the process, as well as with the lack of support from society.^{70,75-77} This can affect later pregnancies creating a fragile emotional state and feelings of isolation and/or can influence negatively the development and behavior of the child.⁷⁸⁻⁸¹

Around 50% of couples that suffer stillbirths give birth within a year.^{73,82} When a couple gives birth after one or several perinatal losses it is expected that the couple would be overcome with happiness. However, literature shows that feelings of anxiety, depression, and postpartum stress arise in comparison to couples that have never experienced a perinatal loss. This may be due to the uncertainty about their protective role. Besides, some parents may still be dealing with the effects of previous stillbirths and the grief related to perinatal losses.⁷⁶ In some cases, the crisis resolution turns out to be maladaptive and individuals can meet the criteria for persistent complex bereavement disorder. Couples who meet the criteria for this type of diagnosis will experience greater psychological vulnerability. This process requires specialized attention addressing parents' psycho-emotional status to ensure their well-being as much as the well-being of the expected new child. They also would require a safe space to overcome and process their grief.

Grieving process tends to mitigate the negative impact of the loss. Any individual that goes through a significant loss will face this process. From the psychoanalytic perspective established by Freud,⁴⁵ grief is not a product of a pathological condition; therefore, with the passing of time it should improve. Due to some unique conditions of perinatal loss, first-time parents could suffer serious repercussions that could profoundly affect their well-being to the point of needing clinical intervention depending on the symptoms the individual has.

CLINICAL SEQUELAE

According to the Diagnostic and Statistical Manual of Mental Disorders,⁸³ uncomplicated bereavement (V62.82) is defined as a normal reaction to the death of a loved one, in which some individual afflictions range in symptoms of major depression episode with feelings of deep sorrow, significant weight loss/gain, insomnia or hypersomnia, psychomotor retardation or agitation, and recurrent thoughts of death. Other definitions from prominent expert authors in bereavement^{2,15,17,19,45} define bereavement as the reaction to the loss of a loved one, as well as to the loss of something material, or symbolic, depending on the attachment to the object. Authors agree that bereavement should be considered as a life-altering experience, but should also be considered as a common or expected process in the circle of life in the sense that most individuals will face bereavement in their lifetimes. According to the DSM-5,⁸³ there are some similarities and differences between uncomplicated bereavement and clinical depression. Both conditions deal with feelings of guilt. During uncomplicated bereavement, feelings of guilt may persist as well as a sense of emptiness. These feelings are associated to the deceased and tend to improve with the passing of time (e. g., days or weeks), but they come back occasionally. Different from clinical depression, where sadness and negative thoughts

persist, during uncomplicated bereavement at times, the individual has positive and even joyful feelings. During the clinical depression there is the inability of experiencing happiness or pleasure. Through this episode, the depressed mood an individual is experiencing is not associated with thoughts or specific worries, contrary to uncomplicated bereavement.

The guilt is the common denominator between uncomplicated bereavement and clinical depression. Regardless of the culpability experienced in both diagnoses, it can be differentiated through the content of thought. During uncomplicated bereavement, guilt is associated with surviving a lost child while in clinical depression, it is associated with thoughts of low self-worth and pessimistic rumination. Generally, the self-esteem of an individual in clinical depression is highly affected due to an overwhelming feeling of poor self-concept and self-deprecation. Usually, in uncomplicated bereavement, individual's self-esteem is not impacted. Nevertheless, some mother's self-esteem can be impacted during the grieving process.²⁹

Another element that differentiates both diagnoses is the perception of death experienced by the individual. In both diagnoses, there are thoughts about death or dying. However, in clinical depression it is usually centered on ending one's life due to a sense of helplessness, unworthiness, or the inability to handle the pain caused by the depression. Meanwhile, in uncomplicated bereavement, feelings of death are focused around dying to reunite the deceased loved one.⁸³ When the process of grief is mishandled, the individual's capacity to find a sense of life and the ability to make future plans, is diminished; this, characterizes the persistent complex bereavement disorder.

According to the DSM-5,⁸³ the persistent complex bereavement disorder specifies criteria A through E. Criterion A requires that the individual has experienced the death of a loved one; criterion B requires the presence of one of four symptoms related to yearning, longing, and sorrow; criterion C requires six of 12 symptoms demonstrating reactive distress or functional impairment, and; criterion E requires that distress or impairment is outside of socio-cultural norms. Persistent complex bereavement disorder requires that symptoms be present for at least twelve months and that they are not better accounted for by major depressive disorder, generalized anxiety disorder, or post-traumatic stress disorder (PTSD).⁸⁴

Some individuals could manifest symptoms that belong to post-traumatic stress disorder. Generally, an individual that is grieving may not experience PTSD.⁸⁵ However, individuals with pre-existing medical conditions could suffer PTSD, and might have a higher risk of experiencing persistent complex bereavement disorder.⁸⁶⁻⁸⁹

The attention given by a healthcare professional to women during pregnancy, birth, and postpartum, has direct and indirect consequences.^{15,90,91} From the moment the parents receive the news that their child does not have vital signs or has low probability of life, parents start feeling the distress caused by loss. According to the literature, the healthcare professional's delivery of the diagnos-

tic has a bearing on the parents' emotional and psychological state. Healthcare professionals who do not receive specialized training or guidelines to properly manage perinatal loss can aggravate the anguish of loss.⁹² Even as the years go by, parents will remember who gives them the news, and even specific phrases such as “*there is no heartbeat; the child is not compatible with life, among others.*” When professionals do not use the appropriate expressions and bedside manners recommended by scientific literature, parents might develop a wrong perception about healthcare professionals.

In Puerto Rico, a newspaper article,⁹³ presented an interview with mothers who suffered perinatal/postnatal loss. The article mentioned the dissatisfaction and discontent mothers and family members had with healthcare providers after suffering a loss. The mothers described the assistance received from professionals that worked in the hospital as “*cold and inhuman.*” Mothers mentioned that the behaviors of the professionals caused additional distress to them and their families.⁹³ The publication references Project 2560, known as Law 184, which demands proper procedures in a perinatal loss in every hospital and healthcare center in Puerto Rico. The Law establishes that mothers and their families must receive professional assistance according to their needs and should participate in the decision-making process of the loss.

There are countries that have examined mothers' perspective towards the healthcare provider's assistance. A study conducted in Sweden by Höglund et al,⁹⁴ looked at the answers that mothers received to their questions from the healthcare professionals after the stillbirth. The results showed the following: 48.6% did not receive any explanations on cause of deaths, 23.6% received a specific reason and 27.8%, received vague or generic explanations. Participants described the service received from healthcare professionals as poor and their attitude as arrogant and evasive. Beyond the stillbirth process, it was found that these attitudes were also common during pregnancy.⁹⁴

LITIGATION AND PSYCHO-EMOTIONAL ASPECTS OF HEALTHCARE PROVIDERS

When the results of a medical procedure are negative, what is known as “*bad outcome,*” and whether or not there is medical malpractice, it could end up in the courts. This may affect directly the medical personnel involved. A questionnaire study Gold et al⁹⁵ revealed that 75% of obstetricians who suffered a loss indicated that they felt a heavy burden, and 10% considered abandoning their practice. In cases where malpractice occurs, professionals might experience psychological and somatic distress.⁹⁶⁻⁹⁸

Some of the initial emotions the medical community feels after litigation are guilt and shame. These responses reduce the sense of self-value. Professionals become afraid of being exposed publicly and getting rejected or diminished by their peers, commonly accompanied by feelings of guilt, anxiety, and depression. Receiving unexpected news about being sued could create a traumatic experience, “*shock,*” emotional detachment, tension and insomnia, among others.⁹⁸ In these cases, lawyers recommend the professionals not make any statements about the subject. When a professional follows this recommendation and does not talk about

the event, they tend to suffer more significant distress because they cannot express their feelings about what happened. This could lead the professional to isolation, which tends to increase levels of stress and dysfunctional behavior.

CONCLUSION

Perinatal loss is a complex process and can influence the woman's cognitive and emotional functioning. Healthcare professionals need to follow proper guidelines to assist the woman, her partner, and their family in an effective way. Important aspects of cultural values, paternal and maternal identities, self-esteem and the different ways the couple could deal with grief, help minimize the effects of this experience. It is equally important to understand the symptoms associated with the loss, such as uncomplicated bereavement and clinical depression, to provide better management toward the healing process. The literature suggests that interventions should be aligned with the needs of the parents to avoid negative psycho-emotional sequelae for mothers and their families. Management based on scientific evidence can benefit healthcare professionals to effectively assist during perinatal loss. Healthcare professionals must acquire strategies that also benefit their own psychological and emotional well-being. For future investigations, it is recommended that the perception of healthcare professionals that assist women and their families in a stillbirth be explored more deeply. It is crucial to identify possible barriers that may influence women and their partner's participation about the decision-making process in the short time-frame surrounding birth. It is also recommended to explore different approaches that can benefit the emotional and psychological health of the women, their partners and the health professionals who assist them.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

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Original Research

Empathy: Challenges Experienced by Social Workers in the Healthcare Sector on the Island of Crete, Greece

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ABSTRACT

Introduction

Empathy in social work is one of the most important factors that can bring change in the patient, by developing a productive relationship. The purpose of this study is to explore empathy in the practice of social work, as it is used by professional social workers.

Method

Semi-structured interviews were conducted with 12 social workers in public health services in Crete. Responses were recorded, and content analysis was used to analyze the data.

Findings

There were differences in the way that social workers perceive the concept of empathy, depending on their prior experiences. It was also found that they are more “sensitive” when patients have a common problem with them. Among the difficulties that prevented them from being empathetic was having “a difficult personal period” that affected their work. This study has also identified the importance of professional training for the development of empathy skills, and the key-role of work experience. Moreover, it highlighted the importance of co-operation between the researchers and the social workers for generating efficacious and valuable information.

Conclusion

This study emphasizes the importance of empathy as a necessary skill in the relationship between social workers and patients, and the need for in-depth scientific research and analyze on this issue in Greece.

Keywords

Difficulties; Obstacles; Empathy; Social worker; Skill; Patient.

INTRODUCTION

Despite the fact that researchers have different opinions about empathy, and give it different definitions,¹⁻³ empathy is perceived as fundamental for social work practice.⁴ It is mentioned as one of the general guidelines by the way a social worker should act^{5,6} and communicate to create a positive outcome and patient experience.⁷ Empathy is defined as the understanding of the another person’s feelings^{8,9} as “*The act of perceiving, understanding, experiencing, and responding to the emotional state and ideas of another person,*”¹⁰ and as “*The action of understanding, being aware of, being sensitive, and vicariously experiencing the feelings, thoughts, and experience of another*

of either the past or present without having the feelings, thoughts, and experience fully communicated in an objectively explicit manner”.¹¹

Robert Vicher¹² introduced the word “*einfuhlung*” meaning ‘in feeling’ or ‘feeling into’; “feeling and seeing through.” Empathy is referred as the “talent” of entering the personality of others and experiencing their experiences.¹³

The interest in the concept of empathy and its role emerged in the 1960s and the 1970s, as researchers sought to study Carl Rogers’ view about the exploration of the unique therapeutic relationship.¹⁴ This research highlighted the importance

of empathy in the relationship between therapist and patient, to improve doctor-patient relationship, to obtain better patient confidence in and compliance with treatment.¹⁵⁻¹⁸

There appears to be a consensus in the definition of empathy, namely, that an empathic person is able to understand, be aware of and know another person's state, consciousness or condition.^{19,20}

According to the literature, the concept of empathy in social work is important, as it improves outcomes,²¹ by developing a productive relationship between social workers and patients. It is a critical factor ineffective social work, quality of care, patient safety, and satisfaction.²²

When social workers use empathy with patients, improved results are observed, and feel they are more effective in their roles.⁴ Empathy is at the core of the relationship among social workers and patients,²³ as without it, successful outcomes might be difficult to obtain. Empathy is an innate human capability, and a major tool for professional social work greatly enhanced through words and body language.^{4,24} Holm explains that respect, attention, sense of "caring", empathy and professional knowledge are all parts of the mandatory/pre-requisite professional behavior of social workers.⁸

Lazo et al,¹⁸ found that social workers gave different descriptions of the concept of empathy, and its use with patients. Neumann in a German-Israeli research^{17,25} attempted to implement empathic training in healthcare students and found that it could produce significant improvement in empathy, and results in the improvement of the health provider-patient relationship. Such training would be important to include in the educational curriculum for social workers.

According to several studies²⁶⁻³⁰ the extensive use of empathy and compassion could result in a sense of fatigue among professionals. It is reported that social workers and health professionals using empathy and compassion towards patients with mental or physical trauma are at risk of developing professional fatigue or traumatic stress, implying that they could be at personal risk while using these skills.²⁷⁻³⁰ However, a study by Nilsson contradicted this finding and argued that there is no empirical evidence to suggest a relationship between empathy/compassion and professional fatigue. On the contrary, the use of empathy and compassion may contribute to a health professional's ability to regulate his or her feelings.³¹

The purpose of this study is to explore how social workers in a health setting (a) perceive the role of empathy, (b) how they apply it in their experience, (c) what difficulties and obstacles they face in the use of empathy, and (d) what challenges are experienced in the healthcare sector in Crete.

MATERIAL AND METHODS

Study Design

A qualitative approach was used to study the view of social work-

ers in depth.³² The original sample targeted 14 social workers who were working in healthcare services. The sample that eventually participated in the survey was 12. One person refused to participate due to increased workload and another one was outside Crete due to weather conditions. The eligibility criteria were to be graduates of the Department of Social Work and to have worked in a health department over two years. Participants worked at: Heraklion University General Hospital (5), Venizelio Hospital of Heraklion (3), General Hospital of Chania "Agios Ioannis" (2) and Health Centers of the Prefecture of Heraklion such as Moires (1) and Arkalohori Health Center (1). The interviews were conducted one-on-one and took place from May to October 2016 in their workplace. All interviews were conducted in Greek.

Research Tool

Interviews were conducted with the use of a semi-structured questionnaire that had been used in a similar Swedish survey by Lazo et al, in a study titled, "*Reflections on Empathy in Social Work Practice*".¹⁹ The interviews were flexibly guided by a list of topics including demographics profile, kind of work, as well as the concept of empathy (definition-meaning, difficulties, influence, ways of improvement). The original Swedish version was translated into Greek.

Ethical Issues

In order to carry out this study permissions were obtained from the Ethics Committee (5275/09-2016 with number 8922/04-07-2016) of the 7th Health District of Crete, and from each hospital's Ethics Committee. Then, following a telephone conversation with the social workers where they were informed about the survey, a meeting was set for the interview.

Respondents signed a consent form with information about the purpose of the study and to ethical considerations. A tape recorder was used during the interview, with the consent of the participants, to ensure complete and reliable record. All data were encoded with a pseudonym during processing to ensure anonymity of the participants' identity.^{32,33}

Data Analysis

The research team performed content analysis to analyze the data.^{32,33} The interview recordings were transcribed verbatim. The information was classified into four thematic categories, where common elements were identified: 1) Concept of empathy; 2) Applying empathy within the Social Work practice; 3) Difficulties and obstacles in the implementation of empathy; and 4) Ways to tackle difficulties and challenges.

RESULTS

Demographics of Participants

All twelve (12) participants were working in the public health sector; ten (10) in a hospital, managing people mainly with physical health problems. Ten (10) of the participants were women, aged between 43-56-years, with a professional experience of about

6-34-years (Table 1).

Participants	Age	Sex	Professional experience
SW 1	56-years	Female	34-years
SW 2	51-years	Female	19-years
SW 3	47-years	Female	6-years
SW 4	56-years	Female	23-years
SW 5	56-years	Female	30-years
SW 6	50-years	Female	27-years
SW 7	50-years	Female	29-years
SW 8	49-years	Female	17-years
SW 9	58-years	Male	30-years
SW 10	52-years	Female	27-years
SW 11	43-years	Female	14-years
SW 12	49-years	Male	25-years

The Concept of Empathy

The participants tried to describe how they perceived the concept of empathy. Common points involved performance. Everyone agreed that empathy is a social worker's ability to recognize, understand and accept a patient's perspective and problem in order to be able to provide appropriate support.

Two participants said that empathy is a professional's ability to understand the feelings and the reality that the patient is experiencing, without being identified with him or her: SW 8: *"I think it is the ability to understand the feelings of the patient, to be able to understand his or her own conceptual field, how he or she perceives reality without putting in your own elements..."*.

One of the participants said: SW3: *"Empathy for me means that I can get into the shoes of another person, without making these shoes mine"*. One of the participants was unable to give a clear answer as he assumed that empathy was a complex notion. SW5: *"..... I do not understand it very well...if it was clearer or something simpler... I cannot give you any answer:"*.

Another view was expressed, as a combination of talent, theory and experience, embedded in the ethics of the profession. SW 9: *"... I would say that it is a talent to be able to enter into the psychological composition of somebody. But let's say it is a way of combining the theoretical direction of our specialty and the experience that is acquired..."*.

One of the participants believes that empathy is a characteristic of the professional's personality and not a tool that is taught in University. SW 1: *"I think it is also a characteristic of a personality that is something that you must have learned from a very young age. It is not a skill that is learned in university or school?"*.

In general, they described empathy as a process whereby a social worker tries to understand and feel the feelings of the patient by taking their perspective while at the same time holding the necessary distance that is needed in order to be able to help.

Applying Empathy Within the Social Work Practice

Care, interest, understanding, sensitivity were the major themes:

Many of the respondents gave examples to describe the application of empathy. One of the participants chose to share the case of an elderly woman with serious health problems, abandoned by all her family members. After a lot of effort her family refused to cooperate, and Social Services undertook her post-hospital care. SW3: *"If there was no empathy.... we would take her out of the hospital and forget about her. I would go to her house (...) we tried to save as much dignity as we could. We informed the Public Prosecutor about her loneliness and neglect, we got an order for placement in a nursing home, we followed all the necessary steps to get in, and we still keep in touch with the nursing home ..."*.

A common point was found in two participants (SW7 and SW11), who did not answer with specific examples, but said that empathy was due to experience, especially when dealing with something intimate. More specifically, the first one (SW7), due to long experience with patients with mental health problems, recognized the symptoms of their illnesses and could understand more easily how they felt, feeling closer to this category of patients. The second participant (SW11) stated that when patients face a problem that he has also gone through, such as unemployment, he is more "sensitive" since he experienced similar difficulties in the past and understands the situation of the person being served. However, he pointed out that this does not mean that he will help an unemployed person more than a sick person, but that it depends on there sources that are available.

Another participants (SW8) responded that in all cases it is necessary to use empathy. SW 8: *"Generally, in difficult situations, when somebody has lost control, and you approach them with empathy, you can say, I understand you, and I take your hand, and we are going through this together slowly..."*.

These examples show that empathic qualities are expressed in practice, in addition to and in combination with showing genuine interest in comprehending a patient's problem.

Respect and acceptance: All participants agreed that in order for social workers to gain the confidence of patients, they should speak with honesty, show them that they accept and respects them, and uphold their dignity regardless of their problem.

According to SW 11 when social workers are clear and honest with patients, as well as treat them with dignity and respect, patients appreciate it because they feel heard with kindness. SW 11: *"..... When you are clear with a patient and talk to him or her with courtesy and with respect (...), irrespective of his or her financial situation or social status, and you don't treat him or her as inferior, that is what matters. You know, many times people say thank you just because you heard them and you talked to them with kindness?"*.

One of the social workers (SW8) argued that a patient knows that it is not possible to solve all his or her problems through the hospital or the healthcare center. But hearing it from an empathic professional it is often quite enough to calm down the patient. SW 8: *"At this time the patient expects from you to give him or her*

the solution (...). But even the tone of your voice, how you welcome them, as well as the way you behave towards them..., it is enough to give them the chance to calm down". SW3 argued that it is important for the patient not necessarily to find a solution for his or her problem, but to know that he or she has been understood and accepted. Participant SW1 reported that a patient understands when the practitioner has empathic ability, and this determines the quality of their relationship. SW 1: "I think yes. When the other person that stands opposite you understands that you understand how he or she feels, you feel how he or she feels, and participate in his or her emotion. This makes the quality of the relationship better".

In order for patients to realize that the social worker can "put himself/herself in their position", the practitioner should be honest and clear, not necessarily promise solutions, but inform them to what extent they can be helped. It gives patients the opportunity to express themselves, and be accepted without judgment.

Hearing and confirmation: Incidents referred to health services mainly deal with patients that have health problems requiring support and empowerment.

Two of the participants (SW3 and SW12) reported that in their cooperation with the patient, they use active listening without interfering and without hurrying to offer solutions and advice, but always treat them as individual cases. SW 12: "By listening carefully By seeing somebody as a special case.. you treat each person in a special way because every person manages problems in a different way. So, each person's problem is individualized. You have to deal with it differently. So what I'm telling you is the individualization of each person".

Also, two other social workers (SW4 and SW5) indicated the use of dialogue above all and that they try to mobilize patients to act, urging them to talk without pressing them. Three participants (SW2, SW9 and SW11) relied on helping patients to believe in themselves and the potentials they have. Through dialogue, using examples and coaching, they attempt to create trust and lead them to mobilize and act.

Hearing and confirmation through dialogue on the part of the specialist creates a climate of safety and care. SW12: "I think the most important way to increase empathy is to listen carefully to what the other person is telling us, to reflect on what we are hearing in order not to make quick decisions and to take some quick action. Let us be better able to hear the other, with attention, so that any decision we take or any direction we move in is after careful thought and reflection".

Only when the practitioner listens carefully patients can feel understood, both in terms of what they say and what they feel. The answers and solutions social workers may provide is best when they are individualized where each case is treated with utmost respect and special attention without making quick decisions.

Non-verbal communication in empathy: All participants reported that they did not use gestures towards patients in order to show empathy even though a participant SW6 noted that they may have a positive effect. SW 6: "I do not gesture because it is not of my character (...). Of course, I suppose that it helps in some cases, but it's not my character".

SW7 said that he tries to understand what a patient has, wants and needs, through visual contact. One of the participants (SW10) expressed a very different point of view. After working on his own ability of emotional recognition, which he considered very important, he managed to understand better the needs of a person who is asking for help. SW 10: "(...) and I do not get involved in the expression of compassion and so on. Recognition of emotion helps me recognize the patient's need, and to define my relationship with him or her. I told a student yesterday, 'Empathy is not the sympathy we show to someone.' No, it is not the sympathy. It has nothing to do with sympathy. My point is that you need to know yourself well enough to help others. Emotional recognition for me is very important".

Two of the participants (SW1 and SW8) believe that many factors influence the relationship with patients, such as dialogue, behavior, and body language, and they manage each case accordingly.

By listening carefully to patients, understanding their weaknesses, using dialogue and a well developed professional behavior, social workers seem to feel confident in their ability to help. None of the respondents mentioned the use of gestures to show empathy towards the client.

Difficulties and Obstacles in the Implementation of Empathy

Burnout and empathy: There are several barriers and difficulties to empathy's implementation. A major difficulty is burnout and the pressure experienced by social workers.

Three participants (SW1, SW6, and SW11) said that it was difficult to show empathy when they felt tired, depressed, or simply not well, and that it is not easy to approach a patient when they feel exhausted.

Three other respondents had similar responses (SW5, SW11 and SW12). In some cases, due to experience, they focus on practical procedures as they feel they do not need to do anything but give instructions, so their long experience sometimes leads them to operate mechanically without empathy. SW 11: "Many times, it is work experience ... that you don't have to get into the other person's shoes. So, many times you do it mechanically and you need to be careful, because they may have a special and unique problem... everyone is different. So, he or she may require a different handling". Two of the participants (SW9 and SW4), agreed that there is no empathy in every incident.

Professional's own mood seems the main obstacle, since he/she can be affected by his/her own professional fatigue, exhaustion and psychological pressure during work. The result is not being able to help patients. Long-term experience in a particular field with certain vulnerable groups tends to lead the social worker to operate mechanically by often suggesting past solutions and instructions, and avoid approaching patients emotionally, ignoring the fact that every person and every problem is unique.

Difficulty in applying empathy to a particular patient group: Two of the participants (SW2 and SW7) said that they have difficulty being empathetic towards a particular category of patients, specif-

ically towards those who repeatedly visit social services thinking that all their problems have solutions to be provided by the social services. Social workers feel frustrated when they see no improvement in patients' condition, so they stop feeling empathy towards them, even sometimes feel negative emotions, such as anger and indignation. SW 7: *"For example, we help drug users repeatedly and they comeback over and over again in the same condition. I often feel sorry for the negative result of our interventions, but eventually I realized that it is impossible to help them because drug abuse is a serious disease. So, I eventually realized that, regardless, I should not feel angry at them."*

Identification: Participant SW6 was dealing with a problem similar to a patient's problem. She was struggling as she tried to deal with her problem, it caused her to panic, and she was having difficulty concentrating. SW 6: *"I was neither abrupt, nor upset with them. The truth is that I was trying so hard to help. First of all, I tried to concentrate and listen, but then I thought that my own problem was bigger than theirs. So, I realized that I have difficulty working with the patient...because the patient reminded me of my own story, and I was afraid that I would soon have to confront it in myself. I panicked and I could not really concentrate on my thoughts?"*

It appears that when a professional encounters a common problem with a patient it may present an obstacle to working on a patient's problem.

Not acceptance: Another participant reported that there are cases when it is difficult to serve some patients and accept them because they do not agree with their actions. In these cases acceptance of the uniqueness of the individuals, not their actions and deviant behaviors, are difficult to work with. SW 8: *"But for me, I cannot justify their actions?"*

A social worker does not always accept patients' behavior, especially when it is against his/her moral and personal values. However, with professionalism the social worker could proceed to help, but not feel empathic towards the patient.

Difficult personal situations: Several of the social workers noted that there are periods in their lives when they may be experiencing personal problems and concerns that are likely to have a positive or negative effect on their work as well as on how they treat patients. Four participants (SW2, SW9, SW10 and SW12) believe that even when professionals are going through difficult personal situations, they must separate them from work and not allow them to influence the way they deal with patients. SW2: *"No, I do not think that we should be affected by our personal problems because they should be kept aside. If we face a common health problem with our patient at the same time I think that we should not be involved, and, if possible, refer to someone else?"*

Three participants (SW1, SW4 and SW6) said that their work is affected when they face personal problems. One of them said that this influence could sometimes be positive and enhance feelings of empathy towards the patient. Another participant (SW5) said that one's personal experience or problem in common with a patient's problem or situation should not be shared or allowed to be perceived by the patient. SW1 was the only one who noted that one could manage having a personal problem in common with a

patient through personal psychotherapy.

The majority of social workers agreed that professionals' personal problems should be left outside the workplace and not affect the way they serve and help their clients. However, the ability to deal with such situations depends both on the case in question and on prior experience of having worked with such cases..

The transfer of professional work experience into personal life:

Separation of work and personal life is quite important. If they are not separated work may be affected as well as their personal life outside of work. Five of the participants (SW5, SW6, SW9, SW10 and SW12) manage to separate their personal life and work. SW 10: *"No, I separate it completely. Absolutely. But I never let the two affect each other.. There is no reason to allow that?"*

Five of the participants (SW1, SW4, SW7, SW8 and SW11) reported that at the beginning of their professional career they transferred to their home and personal life the concerns and problems faced in their patients, since identification with their patients was more common. Overtime, they managed to separate work and personal life. SW 1: *"At first I used to do it so much, particularly in my early professional years. But I think that is normal at first. I sometimes see that student trainees are completely out of it... they do not care... and they have distancing problem... and it scares me. When I came here, at the beginning, I had that problem too... I was always thinking about it. Then, through work experience I could separate them...and said that one is part of my job and the other part of my home life?"*

Another participant (SW2) did not always manage to not think about what is worrying him at his work. Several times he could not provide meaningful solutions due to reduced and inadequate sources at work. This worried him very much, and he continued to feel much pressure when he returned home. This pressure affected, as he said, his psychosomatic health.

Similarly, another participant (SW3) noted that sometimes he transferred work home, especially when he was concerned about cases where he was not sure about the effectiveness of what he did, and needed another point of view to see if what he had done was acceptable. He attributes this fact to the lack of interdisciplinary communication where different views of health professionals are shared.

Five participants were absolutely certain that there is no reason to shift work anxiety into their personal lives, and that they do it well. Another significant number of participants said that they were able to separate work and home after some years in the profession. As young professionals, they did not know how to do it well, but experience taught them how to.

Ways to Tackle Difficulties - Sources of Empathy

Collaboration with colleagues: Developing cooperation and collaboration among professionals is a way of providing feedback and sharing knowledge. In such collaborations different perspectives and opinions are shared and discussed, and different options are taken into account. Many of the participants noted that coopera-

tion between them and the interdisciplinary team affects positively their work and the way they handle cases and incidents. There are moments and instances when they are very worried because of particularly unusual instances or cases where a second opinion would be helpful. As mentioned above, one of the participants (SW2) needed to discuss a case and was forced go alone and carried his anxiety into his family due to lack of collaborative support at the workplace.

Creating emotional support groups for professionals: The creation of support groups of co-workers composed of professionals is considered to be of value. This idea was expressed by the majority of the participants. They thought it would give stressed-out professional express their negative emotions and feeling resulting from work with their patients, and the difficult working situations they face daily. Such an opportunity would help them leave work related problems and anxiety at the office and not transfer them to their spare time away from work and into their family life.

Education and social employee experience: Another important factor for the expression of empathy by social workers is education and experience. Among the undergraduate studies of social work, it was reported that insufficient knowledge of the empathic techniques was provided. Respondents suggested that experiential seminars should be held to highlight the important role of empathy and ways to apply it. Many years of experience, according to the majority of respondents, helped them overcome the difficulty of using empathy. They indicated that young professionals could enhance empathic skills through experiential seminars and lifelong learning.

DISCUSSION

This study explored the views of experienced social workers about the concept of empathy, and focused to examine general challenges faced by social workers who worked in the healthcare sectors in Crete, Greece. They did not give a clear definition, but empathy was described as a social worker's ability to recognize, understand and accept a patient's position and reality in order to be able to offer needed help without identifying with the issues and problem presented. The majority of the participants noted that empathy is an indispensable asset. Interestingly, the words they used to characterize it were: a skill, a talent, a process that can recognize, understand and accept patient's position and problem in order to be able to offer appropriate support and help without identifying with the patient.

The ability of social workers to empathize and distance at the same time, combined with the Code of Conduct of Social Work, helped them carry out their duties more efficiently and effectively. Awareness of ethnical issues that arise is an important part of providing professional help with best possible outcomes.

It seemed that most social workers did not manage to feel empathy in all cases. Empathy levels could vary depending on the issues and the cases, as well as by social workers ability distance from the issues appropriately. In some cases they focused on the practical procedures in the context of bureaucratic issues. They

sometimes worked mechanically and do not take into account that each person is different, even if the problem is the same. There are those who find it difficult sometimes to see the reality of the patient when faced with something new in which they have no experience or specialization. The variations observed in the practice of social work can be as unique as the professionals themselves.

As the literature suggests,⁹ the commitment to do social work to help patients and deal with their problems depends on the consciousness of the importance of developing and applying empathic skills effectively.

There are several barriers and difficulties in the expression and use of empathy. A major difficulty is burnout and the pressure experienced by social workers. When social workers have themselves faced problems in the past similar to the patients' it maybe easier to use empathy, since they can relate to and understand more easily how a patient feels and what he/she needs. This makes them to be more sensitive and helps them empathize more readily. However, such common experiences may also interfere with the need to distance themselves, potentially leading to less than adequate interventions and personal distress. After a long-term demanding work in the healthcare sector, empathy is sometimes difficult to achieve and may lead to burnout and professional fatigue.

The mood of social workers seems to be the main obstacle, since they can be affected by professional fatigue, exhaustion and psychological pressures during work. The result is that they are less effective in helping patients. Long-term experience of confronting and dealing with different incidents and vulnerable groups with less than adequate resources and personal support leads them to operate mechanically, offering simple and arbitrary solutions and instructions, and frequently avoiding approaching patients with empathy. Such conditions often lead to what is called compassion fatigue as noted by may studies and surveys.^{26-30,34,35} Over time and with experience social workers seem to develop ways of coping with compassion fatigue and better able to manage their ability to empathize with patients.¹⁹

There is evidence to suggest that experiential seminars on empathy as described by Neumann et al¹⁷ and Williams et al¹⁵ that involved empathic training and seminars could result in improvement in empathic abilities,²² However, while some participants in this study supported the value of training, others tend to think that empathy is hard to train as it is characteristic of the personality of the professional.

Comments by social workers in this study indicate that the role of an interdisciplinary group of healthcare professionals involving discussion of cases and incident among colleagues could contribute positively in improving the management of cases.

There was a feeling that sometimes when social workers were experiencing personal difficulties it contributes to the inability to listening to the patient's problem and feelings empathetically. This finding is consistent with a previous study where most of the interview participants that reported personal struggles in their life

it influenced their ability to practice their duties adequately as social workers.²³

Another important element highlighted by participants in this study was that early on in one's career, it may be more difficult setting limits on distancing when empathy and identifying with the patient leads to transferring patients' problems and concerns into one's personal life. However, with experience it may become easier to manage the separation of the professional and the personal by distances and avoiding the transfer of work to personal life.

Participants noted that to avoid compassion fatigue and burnout the creation of interdisciplinary and emotional support teams would be helpful, in addition to proper training and education, to their able to express empathic intervention in a more consistent manner.

LIMITATIONS AND CONCLUSION

This study has the potential of forming the basis of further research regarding challenges experienced by social workers in the healthcare sector on the island of Crete. As far as we know, there are no studies about what empathy means for social workers in the healthcare sector. This limited qualitative exploratory study raised a number of issues that invites further study to identify ways of improving the practice of social work on this island. It was encouraging that we were able to get access to a group of social workers in healthcare who were prepared to talk about their experiences and issues surrounding empathy. It would be helpful to see similar research conducted elsewhere in Greece to learn more about the challenges social workers face, and to find ways of improving the quality of services provided by them.

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CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

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