

Dancers and their Perception on Medical Treatment for Dance-Related Injuries

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Introduction

Trained Dancers are their own individual form of artistry. From a young age, dancers are pushed mentally, physically, and emotionally to express themselves and create art with the motions of their body. Throughout history, dancers across the world have encountered numerous dance-related injuries affecting their performance. There is no exact definition for what qualifies someone to be a trained dancer, but in this field of research, it is someone who has been in dance training for multiple years. Furthermore, in regards to dance medicine research, professional ballet dancers, secondary, and professional modern dancers are the most studied and analyzed in dance injury research.

In the field of research concerning dance medicine and science, there is limited literature regarding a dancer's perception of physician healthcare due to Dance Medicine not being as common as other sport medicine certifications or other factors that influence a dancers' healthcare seeking behavior. Dancers tend to have different perceptions and opinions towards healthcare for dance-related injury and it is these perceptions and behaviors that present the gap in research being presented in this study. The gap of research also includes the age and area of data being collected. Previous research evaluating dancers' perceptions on healthcare for dance related injuries only evaluates professional dancers in certain companies. Furthermore, published studies only address dancers who are in the professional stage of their career rather than trained dancers who are adolescents. This study evaluates trained dancers 14-18 in Broward County, Florida which has yet to be studied.

In addition, in a study on "Trust, Satisfaction, and Confidence in Health Care Providers Among Student and Professional Dancers in France" dancers felt a greater trust in physical therapists rather than medical doctors. This study is evaluating how age and years of dance experience influence the perception trained dancers ages 14-18 in Broward County have on medical care for dance-related injuries.

Literature Review

In this literature review, five major works consider the aspects of dancers' healthcare in regards to dance-related injuries.

Injury Definition and Patterns

Sarah J. Kenny set the framework for this body of research emphasizing the importance of injury definition on injury burden in Pre Professional Ballet and Contemporary Dancers in "The Influence of Injury Definition on Injury Burden in Pre Professional Ballet and Contemporary Dancers." By using an online questionnaire, Kenny provides findings that "time-loss and medical-attention injury definitions underestimate the injury burden in pre professional dancers." Furthermore, the author concludes that injury surveillance methodologies should contain more inclusive injury definitions. This sets up the basis of the research because displaying that the definitions for injury definition and burden are not inclusive for dancers indicates that this could be a possible

factor that impacts dancers' healthcare seeking behavior. This source sets up the framework for the background on injury in dancers' healthcare and gives a factor to my research.

Authors Shaw Bronner, Caroline McBride & Allison Gill provide a similar lens exploring the injury patterns in professional dancers for 15 years in their study "Musculoskeletal injuries in professional modern dancers: a prospective cohort study of 15 years." Through a coherent study of 15 years the authors attest that 69% of dancers reported work-related musculoskeletal injuries and "45% sustained at least one time-loss-in-jury." They also concluded that "Decreased injury rates and changed injury patterns demonstrate efficacious injury management and prevention programming." This signifies that over time more effective injury management and prevention occured for dancers as time passed due to the large percentage of dancers experiencing dance-related injuries due to the rigorous training they endure. This source gives a background perspective on the rate of injury in dancers which gives reasoning to the purpose of the study and its significance and impact.

Healthcare Experiences

Jill Descoteaux finds a similar theme on dancer's healthcare experiences across different countries in her dissertation "*Dancers' Reflections on Their Healthcare Experiences: Perspectives from Australia and the USA*". Decoteaux describes different emergent themes while interviewing dancers from America and Australia on their experiences with healthcare whilst being a professional dancer. Through this narrative quality lens, the author brings emergent themes to light as aspects of a dancer's quality of healthcare such as knowledge of the body and complementary medicine rather than medical doctor treatment. Descoteaux explains that while conducting interviews, "many dancers from both countries described practitioners that were not physicians, physical therapists / physiotherapists, athletic trainers, nor nurses as "alternative" practitioners." This gives light to the gap where this research centers, identifying the factors that cause dancers to choose alternative medication routes.

Tina Wang and Jeffrey Russell also enter the conversation of dancers' access and satisfaction with healthcare delivery in "A Tenuous Pas de Deux: Examining University Dancers' Access to and Satisfaction with Healthcare Delivery." by gathering data in the form of an online questionnaire on university dancers' access to healthcare and satisfaction with healthcare. The authors found that 75% of dancers reported seeking healthcare advice for dance-related injuries from dance teachers rather than medical doctors. Furthermore, 55% of dancers who visited medical professionals reported having negative experiences due to physicians not understanding the dancers and giving unhelpful advice. This source uses a similar methodology to my study because it uses an online questionnaire to collect data on dancers' healthcare experiences through a qualitative lens.

Stephanie Alimena and Mary E Mamie Air offer a similar perspective in "Trust, Satisfaction, and Confidence in Health Care Providers Among Student and Professional Dancers in France," as they focus on "trust, satisfaction, and confidence in health care providers among student and professional dancers in France." The authors examined the trust dancers had in physicians as a variable influencing their healthcare seeking behavior. Through a cross-sectional study, they discovered that Dancers indicated greater trust in PTs than MDs. Furthermore, they concluded that "Students were less confident than professional dancers in their physician's ability to treat their most severe injury." This source gives a similar qualitative perspective to this research because it brings to light the trust and satisfaction aspect dancers feel towards health practitioners when seeking medical care for dance related injuries.

Methodology

The primary objective of this research is to explore trained dancers' perception on medical care for dance-related injuries. This will be a humanistic form of qualitative research that correlates data from trained dancers being

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surveyed on various factors that influence their perception on different healthcare treatments and whether they have a negative, positive, or neutral outlook on different types of treatments compared to medical doctors.

While influenced by Descoteaux's research, this study focuses on a different aspect and age group: trained dancers in Broward County ages 14-18 and the factors that influence their healthcare seeking behavior. This method of study was designed to analyze the perception dancers ages 14-18 have on types of healthcare treatments for dance-related injuries and correlate the results to different demographics to cohesively explore how age and experience correlate to the dancer's perception. Because I am addressing trained dancers' perspectives on healthcare seeking behavior, their personal qualitative data will be reviewed to identify factors associated with their perception and will then be correlated to age and years of experience as a dancer.

To ensure that there will not be any bias, I will randomly select around 20 dancers from multiple dance studios across Broward County within the age range. Each survey will be guided by a set of questions to identify demographic, experience, factor, and actual behaviors. The guiding questions will give dancers a space to identify their opinions freely and genuinely since it is their own personal experience. The questions asked will evaluate whether dancers agree or disagree with statements to evaluate their perception. First, the dancers will be asked their age, gender, and years of dance experience. Then, the dancers will be asked their opinion on medical doctors providing accurate and feasible treatments versus physical therapists and home remedies. Lastly, the dancers will be asked whether they feel physicians without a dance medicine certification have a misunderstanding of dancer's injuries and prescribe treatments that are not suitable. Each question will be guided by a scale of one to five. One signifies that the dancer strongly disagrees with the statement. Two signifies that the dancer somewhat disagrees with the statement provided. Three signifies that the dancer is neutral in regards to the statement given and neither disagrees nor agrees. Four means that the dancer somewhat agrees with the statement, and five means that the dance strongly agrees with the statement. This scale of one to five allows the dancer to establish their opinion on each form of treatment and allow for a clear evaluation of their perception in order for it to be analyzed. The responses from each dancer will also be averaged to establish what the average response was for each question in regards to age and years of dance experience.

Questions

- Age

- 14 - 15
- 16
- 17
- 17

_

- How many years have you been dancing?
 - 0-3 years
 - 4-7 years
 - 8-10 years
 - 11-13 years
 - 14-18 years
- Do you feel that medical doctors provide an accurate diagnosis and treatment for dance-related injuries?
 - 1 (strongly disagree) to 5 (strongly agree)
- Do you feel physical therapists provide a more accurate and feasible treatment than medical doctors for dance-related injuries?
 - 1 (strongly disagree) to 5 (strongly agree)
- Do you feel that home remedies provide a more accurate and feasible treatment than medical doctors for dance-related injuries?



- 1 (strongly disagree) to 5 (strongly agree)
- Do you feel that medical doctors without a dance medicine certification have a misunderstanding of dancer's injuries and prescribe treatment plans that are not suitable?
 - 1 (strongly disagree) to 5 (strongly agree)

Sampling Method

The sampling method being used in this study is stratified sampling. This is stratified sampling, because the dancers being surveyed are being taken from a population of all dancers. This population of all dancers is then placed into different subsets of the population. The subset of this population of all dancers would be all dancers who are 14-18. This subset of 14-18 year old dancers is then placed into another subset of dancers ages 14-18 in Broward County. This subset of the population creates the sample used in this study and allows for a specific sample of individuals. Other sampling methods are also incorporated, but stratified sampling is the most present amongst the methodology.

Results

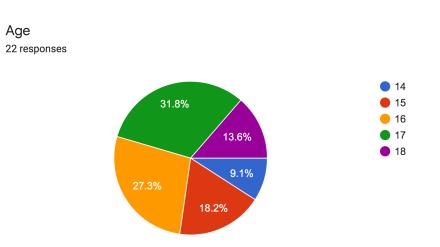


Figure 1. Age

In the age demographics for my survey, 9.1% of participants were 14 years old, 18.2% were 15 years old, 27.3% of participants were 16 years old, 31.8% of participants were 17 years old, and 13.6% were 18 years old.



Gender 22 responses • Male • Female • Other

Figure 2. Gender

22 responses

In the gender demographics, 90.9% were female, 4.5% were male, and 4.5% selected others.

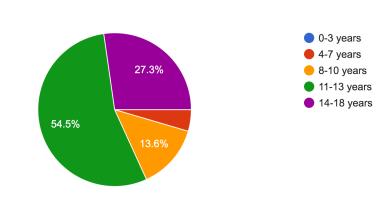


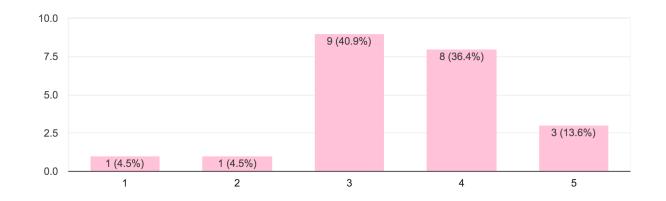
Figure 3. How many years have you been dancing?

How many years have you been dancing?

In years of dance experience, 54.5% of participants have been dancing for 11-13 years, 27.3% have been dancing for 14-18 years, 13.6% have been dancing for 8-10 years, and 4.5% have been dancing for 4-7 years.



22 responses



Do you feel that medical doctors provide an accurate diagnosis and treatment for dance-related injuries?

Figure 4. Do you feel that medical doctors provide an accurate diagnosis and treatment for dance-related injuries?

When participants were asked whether they felt medical doctors provide an accurate diagnosis and treatment for dance-related injuries 13.6% strongly agreed, 36.4% somewhat agreed, 40.9% were neutral, 4.5% somewhat disagreed, and 4.5% strongly disagreed.

Based on the responses, the majority of dancers were neutral in believing that medical doctors provide an accurate diagnosis and treatment for dance related injuries. Following the majority, 8 participants somewhat agreed that medical doctors provide an accurate diagnosis and treatment for dance related injuries. The minority opinion was disagreeing with the belief that medical doctors provide an accurate diagnosis and treatment for dance related injuries. Although this is not supported by other participants, there were dancers that disagreed.

Do you feel physical therapists provide a more accurate and feasible treatment than medical doctors for dance-related injuries? 22 responses

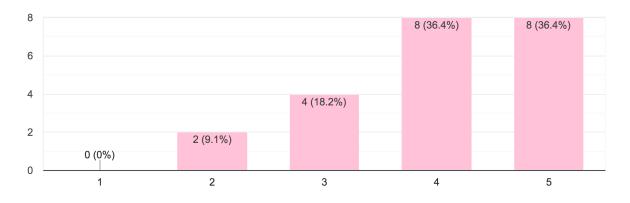


Figure 5. Do you feel physical therapists provide a more accurate and feasible treatment than medical doctors for dance-related injuries?

When participants were asked whether they felt physical therapists provide a more accurate and feasible treatment than medical doctors for dance-related injuries 36.4% strongly agreed, 36.4% somewhat agreed, 18.2% were neutral, 9.1% somewhat disagreed, and 0% strongly disagreed.

According to the results, the majority of dancers somewhat agree and strongly agree with the notion that physical therapists provide a more feasible treatment than doctors for treatment of dance related injuries. Based on the table, those who agreed had been dancing between 11-18 years and mostly 17 years old. This could be because those who have been older and dancing longer have more experience dealing with injuries that could contribute to their response of strongly agreeing.

Do you feel that home remedies provide a more accurate and feasible treatment than medical doctors for dance-related injuries? 22 responses

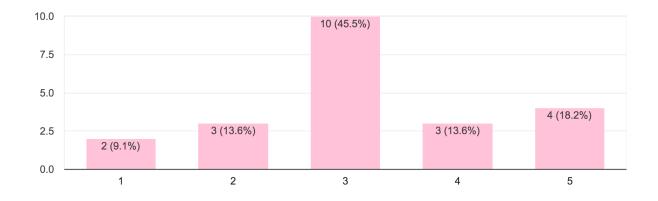


Figure 6. Do you feel that home remedies provide a more accurate and feasible treatment than medical doctors for dance-related injuries?

When participants were asking if they felt home remedies provide a more accurate and feasible treatment than medical doctors for dance-related injuries, 18.2% strongly agreed, 13.6% somewhat agreed, 45.5% were neutral, 13.6% somewhat disagreed, and 9.1% strongly disagreed.

According to the results, the majority of the dancers were neutral in thinking that home remedies provide a more accurate treatment than medical doctors for dance-related injuries. Neutral signifies that they both agreed and disagreed and did not have an opinion that was stronger. There were some participants who somewhat and strongly agreed and disagreed, but the results are skewed unimodal. Those who were neutral came from the younger half of the selected age groups and variety in years of dance experience. Those who somewhat and strongly agreed came from a mix of younger and older dancers in the age category.



Do you feel that medical doctors without a dance medicine certification have a misunderstanding of dancer's injuries and they prescribe treatment plans that are not suitable? 22 responses

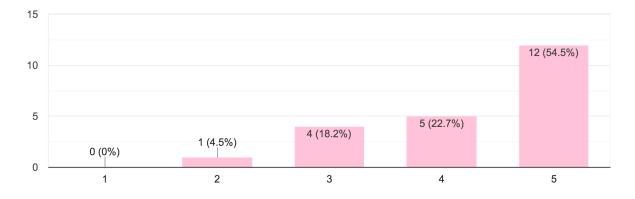
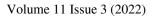


Figure 7. Do you feel that medical doctors without a dance medicine certification have a misunderstanding of dancer's injuries and they prescribe treatment plans that are not suitable?

When dancers were asked if they felt medical doctors without a dance medicine certification have a misunderstanding of dancer's injuries and that they prescribe treatment plans which are not suitable, 54.5% strongly agreed, 22.7% somewhat agreed, 18.2% were neutral, 4.5% somewhat disagreed, and 0% strongly disagreed.

According to the graph above, the majority of the participants felt that medical doctors without a dance medicine certification have a misunderstanding of dancer's injuries and prescribe treatment plans that are not suitable. More than half of the dancers strongly agreed while the second majority somewhat agreed. The dancers that strongly agreed came from a mix of different ages in the selected ages, but have the most dance experience at 11-13 and 14-18 years.

						Do you feel that medical doctors
		How many years have you been	Do you feel that medical doctors provide an accurate di- agnosis and treatment for dance-related	Do you feel physi- cal therapists pro- vide a more accu- rate and feasible treatment than med- ical doctors for dance-related inju-	Do you feel that home remedies provide a more accurate and fea- sible treatment than medical doc- tors for dance-re-	without a dance medicine certifica- tion have a misun- derstanding of danc- er's injuries and they prescribe treatment plans that are not
Age	Gender	dancing?	injuries?	ries?	lated injuries?	suitable?
16	Female	14-18 years	4	3	3	5
14	Female	11-13 years	4	5	5	5
14	Female	11-13 years	4	4	3	3
16	Female	11-13 years	4	4	2	4

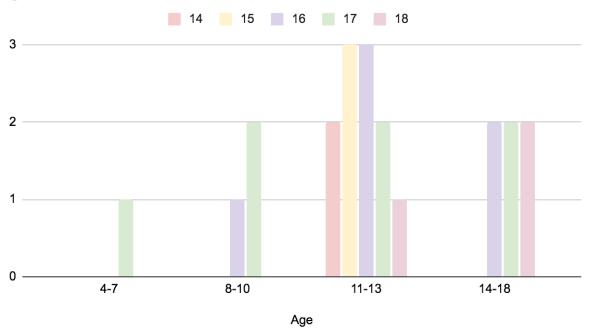




18	Female	14-18 years	3	3	5	4
16	Female	8-10 years	3	4	3	3
17	Female	14-18 years	3	5	3	5
17	Female	8-10 years	4	5	3	4
15	Female	11-13 years	3	4	4	5
15	Female	11-13 years	3	4	2	5
17	Female	11-13 years	1	2	1	5
15	Female	11-13 years	3	4	3	4
17	Female	4-7 years	3	4	3	5
16	Female	14-18 years	2	5	3	5
15	Other	11-13 years	3	4	5	5
17	Male	11-13 years	5	5	2	4
16	Female	11-13 years	5	5	5	5
16	Female	11-13 years	3	5	1	5
17	Female	8-10 years	4	5	3	3
17	Female	14-18 years	4	3	4	3
18	Female	11-13 years	4	3	3	5
18	Female	14-18 years	5	2	4	5

Figure 8. All responses gathered





Age and Years of Dance Experience

Figure 9. Comparison of Responses based on Age and Years of Dance Experience

						Do you feel that
				Do you feel		medical doctors
				physical thera-	Do you feel that	without a dance
				pists provide a	home remedies	medicine certifica-
			Do you feel that	more accurate	provide a more	tion have a misun-
			medical doctors pro-	and feasible	accurate and fea-	derstanding of
		How many	vide an accurate di-	treatment than	sible treatment	dancer's injuries
		years have	agnosis and treat-	medical doctors	than medical doc-	and they prescribe
		you been	ment for dance-re-	for dance-related	tors for dance-re-	treatment plans that
Age	Gender	dancing?	lated injuries?	injuries?	lated injuries?	are not suitable?
17	Female	4-7 years	3	4	3	5

Figure 10. 4-7 Years of Dance Experience

						Do you feel that med-
					Do you feel that	ical doctors without a
			Do you feel that	Do you feel physical	home remedies	dance medicine certi-
			medical doctors	therapists provide a	provide a more	fication have a misun-
			provide an ac-	more accurate and	accurate and fea-	derstanding of danc-
		How many	curate diagnosis	feasible treatment	sible treatment	er's injuries and they
		years have	and treatment	than medical doctors	than medical doc-	prescribe treatment
		you been	for dance-re-	for dance-related in-	tors for dance-re-	plans that are not suit-
Age	Gender	dancing?	lated injuries?	juries?	lated injuries?	able?





16	Female	8-10 years	3	4	3	3
17	Female	8-10 years	4	5	3	4
17	Female	8-10 years	4	5	3	3

Figure 11. 8-10 Years of Dance Experience

Age		Gender	How many years have you been dancing?	Do you feel that medical doctors provide an accu- rate diagnosis and treatment for dance-related in- juries?	Do you feel physi- cal therapists pro- vide a more accu- rate and feasible treatment than medical doctors for dance-related inju- ries?	Do you feel that home remedies provide a more ac- curate and feasible treatment than medical doctors for dance-related injuries?	Do you feel that medical doctors without a dance medicine certifica- tion have a misun- derstanding of dancer's injuries and they prescribe treatment plans that are not suitable?
	14	Female	11-13 years	4	5	5	5
	14	Female	11-13 years	4	4	3	3
	16	Female	11-13 years	4	4	2	4
	15	Female	11-13 years	3	4	4	5
	15	Female	11-13 years	3	4	2	5
	17	Female	11-13 years	1	2	1	5
	15	Female	11-13 years	3	4	3	4
	15	Other	11-13 years	3	4	5	5
	17	Male	11-13 years	5	5	2	4
	16	Female	11-13 years	5	5	5	5
	16	Female	11-13 years	3	5	1	5
	18	Female	11-13 years	4	3	3	5

Figure 12. 11-13 Years of Dance Experience

				Do you feel physi-		Do you feel that medi-
			Do you feel that	cal therapists pro-	Do you feel that	cal doctors without a
			medical doctors	vide a more accu-	home remedies	dance medicine certifi-
			provide an accu-	rate and feasible	provide a more	cation have a misunder-
		How many	rate diagnosis	treatment than med-	accurate and fea-	standing of dancer's in-
		years have	and treatment for	ical doctors for	sible treatment	juries and they pre-
		you been	dance-related in-	dance-related inju-	than medical	scribe treatment plans
Age	Gender	dancing?	juries?	ries?	doctors for	that are not suitable?



					dance-related in-	
					juries?	
					Julies.	
16	Female	14-18 years	4	3	3	5
10	remaie	14-16 years	4			
18	Female	14-18 years	3	3	5	4
17	Female	14-18 years	3	5	3	5
16	Female	14-18 years	2	5	3	5
17	Female	14-18 years	4	3	4	3
18	Female	14-18 years	5	2	4	5

Figure 13. 14-18 Years of Dance Experience

					Do you feel that	
				Do you feel physi-	home remedies	Do you feel that medi-
			Do you feel that	cal therapists pro-	provide a more	cal doctors without a
			medical doctors	vide a more accu-	accurate and fea-	dance medicine certifi-
			provide an accu-	rate and feasible	sible treatment	cation have a misun-
			rate diagnosis	treatment than	than medical	derstanding of dancer's
		How many	and treatment	medical doctors	doctors for	injuries and they pre-
		years have you	for dance-related	for dance-related	dance-related in-	scribe treatment plans
Age	Gend	er been dancing?	injuries?	injuries?	juries?	that are not suitable?
1	4 Fema	le 11-13 years	4	5	5	5
1	4 Fema	le 11-13 years	4	4	3	3

Figure 14. 14 year old Dancers

						Do you feel
					Do you	that medical
					•	
					feel that	doctors with-
					home rem-	out a dance
					edies pro-	medicine cer-
				Do you feel phys-	vide a	tification have
				ical therapists pro-	more ac-	a misunder-
			Do you feel that	vide a more accu-	curate and	standing of
			medical doctors	rate and feasible	feasible	dancer's inju-
			provide an accurate	treatment than	treatment	ries and they
		How many	diagnosis and treat-	medical doctors	than medi-	prescribe
		years have you	ment for dance-re-	for dance-related	cal doctors	treatment
Age	Gender	been dancing?	lated injuries?	injuries?	for dance-	plans that are



					related in- juries?	not suitable?
15	Female	11-13 years	3	4	4	5
15	Female	11-13 years	3	4	2	5
15	Female	11-13 years	3	4	3	4
15	Other	11-13 years	3	4	5	5

Figure 15. 15 year old Dancers

Age	Gender	How many years have you been dancing?	Do you feel that medical doctors provide an accu- rate diagnosis and treatment for dance-related in- juries?	Do you feel physical thera- pists provide a more accurate and feasible treatment than medical doctors for dance-related injuries?	ble treat- ment than medical doctors for dance-re-	Do you feel that medi- cal doctors without a dance medicine certi- fication have a misun- derstanding of danc- er's injuries and they prescribe treatment plans that are not suit- able?
16	Female	14-18 years	4	3	3	5
16	Female	11-13 years	4	4	2	4
16	Female	8-10 years	3	4	3	3
16	Female	14-18 years	2	5	3	5
16	Female	11-13 years	5	5	5	5
16	Female	11-13 years	3	5	1	5

Figure 16. 16 year old Dancers



					Do you	Do you feel
					feel that	that medical
						doctors with-
					edies pro-	out a dance
					vide a	medicine cer-
					more ac-	tification have
				Do you feel phys-	curate and	a misunder-
				ical therapists pro-	feasible	standing of
			Do you feel that	vide a more accu-	treatment	dancer's inju-
			medical doctors	rate and feasible	than medi-	ries and they
			provide an accurate	treatment than	cal doctors	prescribe
		How many	diagnosis and treat-	medical doctors	for dance-	treatment
		years have you	ment for dance-re-	for dance-related	related in-	plans that are
Age	Gender	been dancing?	lated injuries?	injuries?	juries?	not suitable?
17	Female	14-18 years	3	5	3	5
17	Female	8-10 years	4	5	3	4
17	Female	11-13 years	1	2	1	5
17	Female	4-7 years	3	4	3	5
17	Male	11-13 years	5	5	2	4
17	Female	8-10 years	4	5	3	3
17	Female	14-18 years	4	3	4	3

Figure 17. 17 year old Dancers

					Do you	Do you feel
					feel that	that medical
					home rem-	doctors with-
					edies pro-	out a dance
					vide a	medicine cer-
					more ac-	tification have
				Do you feel phys-	curate and	a misunder-
				ical therapists pro-	feasible	standing of
			Do you feel that	vide a more accu-	treatment	dancer's inju-
			medical doctors	rate and feasible	than medi-	ries and they
			provide an accurate	treatment than	cal doctors	prescribe
		How many	diagnosis and treat-	medical doctors	for dance-	treatment
		years have you	ment for dance-re-	for dance-related	related in-	plans that are
Age	Gender	been dancing?	lated injuries?	injuries?	juries?	not suitable?
18	Female	14-18 years	3	3	5	4
18	Female	11-13 years	4	3	3	5
18	Female	14-18 years	5	2	4	5

Figure 18. 18 year old Dancers

Data Analysis

Average Response Findings

When comparing the average response for each question in 4-10 years of dance experience 3.5 was the average response for whether or not dancers felt that medical doctors provide accurate treatment. This average signifies that the dancers were more neutral or agreed with the statement. Additionally, the average response for 11-18 years of dance experience was also 3.5. The average response for 14-16 year olds was 3.4 and 17-18 year olds was 3.6. The average response of this question prompts a neutral perception from the dancers, with a slight agreement due to the decimal being closer to 4, which would indicate that the dancers somewhat agreed.

The second question of the survey regarding physical therapy did prompt a clearer average perception amongst dancers. The average response of Dancers with 4-10 years of dance experience was 4.5, meaning that they agreed with the statement that physical therapists provide better treatment than medical dancers for dance related injuries, indicating a negative perception towards medical doctors, and a positive perception towards physical therapists. The average response for 11-18 years was 3.9 which can be rounded to 4 meaning that they also agreed with the statement. For age, the average response of 14-16 year olds was 4.4, meaning that they somewhat agreed with the statement, and coincided with the dancers with 4-10 years of dance experience. Following this, the 17-18 year old dancers had an average response of 3.7 which gives way to neutral and positive perceptions towards physical therapists. Overall, the dancers had a more positive perception towards physical therapists between all ages and years of dance experience.

Regarding the third question of the survey on home remedies, the average response between dancers of all ages and dance experience was 3. In dancers ages 14-16 the average response was 3.25, and the average response for dancers ages 17-18 was 3.1. Furthermore, the average response for dancers with 4-10 years of dance experience was 3 and the response for dancers with 11-18 years of experience was 3.2. This means that the dancers had neither a positive nor negative perception towards home remedies as a form of treatment for dance related injuries. This could be due to the fact that dancers may not have prior knowledge to forms of remedies applicable to their injury.

Lastly, when dancers were asked whether they felt that because dance medicine is not as common as other certifications, that medical doctors have a misunderstanding of dance injuries, the average response for all ages and years of dance experience was 4. This means that the dancers agreed with this statement overall. Dancers with 11-18 years of dance experience average response was 4.5, indicating a majority agreement with the statement. Furthermore, the averages for 14-16 year olds was 4.1 and the response for 17-18 year olds was 4.3. These averages indicate a negative perception of medical doctor's treatment of dance related injuries because they feel that without this dance medicine certification, they have a misunderstanding of their injuries.

Demographic Analysis

Based on the demographic results it can be inferred that the majority of the participants were 17 year old females. In regards to years of dance experience, the majority of dancers have been dancing for 11-13 years.

Overall Data Analysis

Based on the results, the majority of dancers were neutral or agreed with the statements to certain extents. There was no question that created a large disagreement between the participants. When asked if they felt medical doctors did not provide a feasible treatment, the majority were neutral. This contrasts the majority agreement

in the notion that physical therapists provide a more feasible treatment than medical doctors since 72.8% agreed overall. When asked about home remedies, results were mixed amongst ages and years of dance experience. This could be because some dancers have not used home remedies and most of the dancers do not have a strong opinion towards the use of home remedies.

When prompted the last question regarding dance medicine 17 out of the 22 participants agreed with the statement that medical doctors without a dance medicine certification have a misunderstanding of dancer's injuries and prescribe treatment plans that are not suitable. Although there was a low percentage of dancers who were neutral and somewhat disagreed, this could be due to lack of knowledge on what dance medicine is or lack of experience. Those who were neutral and somewhat disagreed had lower years of dance experience running from 8-10 years and were in the younger ages.

When evaluating age and years of dance experience as a correlating variable, it can be noted that age did not have as much of an impact as years of dance experience in the responses. When comparing the data by response age, there is no trend that emerges and responses vary amongst participants. When assessing the data between years of dance experience and the dancers responses, it can be inferred that majority of dancers with more years of dance experience agreed that physical therapy as treatment for dance injury was better suited than a medical doctor's treatment. The results for responses on home remedies varied between age and years of dance experience in the 11-18 years of dance experience, but dancers with less experience felt neutral. Furthermore, the majority of dancers in all years of dance experience and age somewhat agreed that medical doctors provide an accurate diagnosis and treatment for dance-related injuries, while some others disagreed and strongly agreed. An explanation for this could be due to different experiences dancers may face with physicians throughout their years of dance.

When evaluating the responses when dancers were asked if they felt that medical doctors without a dance medicine certification have a misunderstanding of dancer's injuries and prescribe treatment plans that are not suitable, those who were older strongly agreed and those who were younger somewhat agreed or were neutral. In addition, the majority of dancers with more years of dance experience somewhat agreed or strongly agreed rather than choosing neutral. This signifies that as years of dance experience increased, dancers felt stronger on the misunderstanding of dancer's injuries.

Overall, dancers have a varied opinion on treatment for dance-related injuries. Dancers have a neutral and positive perception towards medical doctors' treatment. Dancers had a positive perception toward physical therapy as a course of treatment, and a varied neutral perception on home remedies as treatment. Lastly, dancers had a negative perception towards medical doctors who are not dance medicine certified and have a misunder-standing of dancer's injuries. The varied responses between age and years of dance experience attribute to the different experiences dancers face throughout their years of training. Due to the positive perception of physical therapy over medical doctors, this sample had a more negative perception towards medical treatment for dance-related injuries.

Limitations

The results given by this sample do not account for all dancers, but provide insight into some dancers' perceptions. A limitation of this study was the gender demographic, as there were significantly more female dancers in the study, due to them being more accessible than male dancers. There are not many male dancers in Broward County ages 14-18 in a feasible range of contact, which contributes to the low response from the male perspective.

Discussion/Conclusion

The results of this study indicate that the initial hypothesis was correct and dancers do have a negative perception towards medical doctors' treatment of dance related injuries. When comparing the average response for each question dancers on average agreed with other forms of treatment such as physical therapy rather than the treatment from medical doctors. In addition, dancers felt that doctors without dance medicine have a misunderstanding of dancers injuries, suggesting a negative perception. This research demonstrated a correlation between years of dance experience and perception, yielding that the more experience dancers had, the stronger the opinion they had in their responses.

For future research, researchers should evaluate the factors that influence the perception of trained adolescent dancers, rather than establishing what their perception is. Researchers should also take into consideration the lack of knowledge dancers may have on their injuries at a young age and include this as a variable if perception were to be further researched. My research fits into the gap of establishing what the perception of trained adolescent dancers, specifically in Broward County. This area of research prompted limitations of gender and variety in data due to sampling methods.

The future implications from the results of this study allow for discussion on the treatment of adolescent dancers for dance related injuries. By evaluating the perception of younger dancers rather than professional dancers, a new perspective can be seen that allows for further research. Because there is a negative perception, there is room for further investigation in the realm of dance medicine and literature regarding trained dancers and their perceptions of treatment for dance injuries. Furthemore, a recommendation of collecting data from a wider area where more responses from the male gender can be used to improve the quantity and quality of the data provided.

The purpose of this study was to evaluate the overall perception of trained dancers in Broward County ages 14-18 and correlate the overall perception to age and years of dance experience. Because an overall perception can be displayed through the data provided, there can be future research to delve further into this topic of research that there is little data on. The implications of further studying this topic would allow for the improvement of treatment for dancers across the country and allow them to receive proper treatment for the injuries they are prone to receiving.

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