

Self-Assessment of Professionalism Core Values among Practicing Pediatrics Physical Therapists

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Abstract

Background: Development of professional physical therapy core values (PPTCV) is an essential element in practicing of pediatrics physical therapy. Achievement of PPTCV is fundamental for development of professionalism, successful decision-making processes and high quality services of patients.

Aim of Study: To assess the development of PPTCV and compare the levels of professionalism among practicing Egyptian pediatrics physical therapists.

Material and Methods: A total of 300 pediatrics physical therapists including general practitioners, specialists, consultant and managers from both sexes participated in this study. Subjects from both sexes participated in this study. PPTCV self-assessment questionnaire was used to assess the levels of professionalism among all professional categories. The survey was carried out in personal focus groups paper-based format (n=75) and online Google form (n=225).

Results: The results of this study indicated that all professional categories revealed very high scores of core values of the PPTCV which reflect an eminent degree of professionalism which was concomitant with considerable variability between different professional categories.

Conclusion: Overall levels of professionalism among practicing Egyptian pediatrics physical therapists were high especially in accountability values. The lowest value among all professional categories was for social responsibility. The lowest values of PPTCV were indicated by the practitioners while the highest values were reported by the consultants, so higher level of professionalism was observed with higher professional category.

Key Words: *Accountability – Core values – Physical therapist – Professionalism – Altruism.*

Introduction

THE formation of professional identity, including development of professional values, actions, and aspirations, has been recognized as an essential element of education in the health professions [1,2].

Professionalism in physical therapy includes those aspects of the occupational control of work which are in the best interests of customers, clients and patients, as well as in the advice-giving, lobbying and sometimes oppositional aspects of professions' relations with states, legislative bodies, and regional and local administrative agencies [3].

Professionalism is a multidimensional construct that has been addressed through numerous American Physical Therapy Association (APTA) documents [4]. The APTA developed the core values definition and included it as part of credentials and requirements for entry-level physical therapy programs [6]. APTA had identified the core values of professionalism in physical therapy as:

- Accountability is an active acceptance of the responsibility for the diverse roles, obligations, and actions of the physical therapist including self-regulation and other behaviors that positively influence patient/client outcomes, the profession and the health needs of society.
- Altruism is the primary regard for or devotion to the interest of patients/clients, thus assuming the fiduciary responsibility of placing the needs of the patient/client ahead of the physical therapist's self-interest.
- Compassion is the desire to identify with or sense something of another's experience; a precursor of caring. Caring is the concern, empathy, and consideration for the needs and values of others.
- Excellence is physical therapy practice that consistently uses current knowledge and theory while understanding personal limits, integrates judgment and the patient/client perspective, challenges mediocrity, and works toward development of new knowledge.

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- Integrity is steadfast adherence to high ethical principles or professional standards; truthfulness, fairness, doing what you say you will do, and “speaking forth” about why you do what you do.
- Professional duty is the commitment to meeting one's obligations to provide effective physical therapy services to individual patients/clients, to serve the profession, and to positively influence the health of society; and
- Social responsibility is the promotion of a mutual trust between the profession and the larger public that necessitates responding to societal needs for health and wellness [8].

Professionalism encompasses standards for values, behaviors, and practice within a profession. The term “profession” has descriptive and normative meanings [5]. As a descriptive term, it describes occupations possessing a defined body of knowledge that is applied to practice. The normative component refers to established quality standards and ethical codes applied to practice. Both descriptive and normative components provide the foundation for professionalism [4]. It was reported that gaining an in-depth understanding of how practicing clinicians incorporate professional core values into clinical practice may shed light on the relationship between core values mastery and its impact on patient care [4]. There are no available studies regarding the development of professionalism among pediatric physical therapists in Egypt. Therefore, the main aim of the current study was to assess the development of PPTCV among practicing pediatrics physical therapists and to compare the level of professionalism among practicing pediatrics physical therapists.

Material and Methods

Study design:

This is a cross-sectional multi-institutional survey for (PPTCV) of Egyptian pediatrics physical therapists who are labor market-oriented was carried out from June 2020 to May 2021.

Ethical consideration:

All participants signed a consent form prior to data collection.

Participants:

The number of Egyptian pediatric physical therapists at Egypt was reported based on the records of the Egyptian General Physical Therapy Syndicate-(GPTS). Consequently, and based on this number, the sample size estimation was calculated. The sample size for this study was calculated

using the G*power program 3.1.9 (G power program version 3. 1, Heinrich-Heine-University, Düsseldorf, Germany) for one tailed test. Sample size calculation based on χ^2 tests (Variance: Difference from constant - one sample case), Type I error (α) = 0.05, power (1- β error probability) =0.80, and ratio var1/var0 = 1.224468836. The appropriate sample size for this study was 297 as a minimum.

Inclusion criteria:

Participants were included according to the following criteria:

- Native Egyptian.
- Pediatrics physical therapists who are labor market-oriented.
- Represent different professional contexts.
- Work as general practitioners, specialists and consultants.
- Both genders participated in the study
- Participants were on the job and willing to participate in this study.
- All participants were licensed by the General Physical Therapy Syndicate-(GPTS).

Exclusion criteria:

Participants were excluded if they had any of the following criteria:

- Working in police or arm force hospitals.
- Received continuous vacation periods of more than 15% of the work experience period.
- Any medical problem that may interfere with the work load.
- Violated legal and/or professional legislations.

Study setting:

The current study was carried out in both personal focus groups paper-based format (n=75) and online Google form (n= 225). The increased number of the online Google form was attributed to the appearance of Corona virus disease (COVID-19) pandemic which negatively impacted our lives and had put social distancing on the front lines.

The survey was conducted at eight governmental and two private hospitals and centers representing four governorates namely, Giza, Cairo, Almenya and Assuit. Taking into consideration the sample size estimated and the inclusion criteria of the participants, a stratified and convenience sampling techniques was used to select the study participants.

PPTCV was used for data collection. The survey questionnaire consists of seven core values that

define the critical elements which comprise professionalism namely; Accountability, Altruism, Compassion/Care. Excellence, Professional duty, Integrity and Social responsibility.

The study was carried out on both paper-based format (25%) and the online Google format (75%), the higher number of online form attributed to appearance of corona virus which negatively impacted our lives. The study included evaluation of PPTCV in 126 (42.00%) practitioners, 146 (48.70%) specialists, 6 (2%) consultants, and 22 (7.30%) managers.

Out of the 300 participants, 178 (59.30%) are working in the governmental health institutions and 122 (40.67%) are working in private health institutions.

Instrumentations:

The valid and reliable self-assessment form which indicates PPTCV was used for data collection. The survey questionnaire consists of seven core values that define the critical elements which comprise professionalism. PPTCV evaluates the frequency with which participants demonstrate each of the seven core values [7]. For each identified core value, a definition and sample indicators were provided that describe what the physical therapist would be doing in practice, education, and/or research if these core values are present. The survey questionnaire consisted of sample indicators for each of the seven core values.

III- Procedures:

A personal information sheet provided to record participant's personal information comprising his/her name, age, gender, date of enrollment and graduation from the Faculty of Physical Therapy, the highest scientific certificate obtained, date of starting the professional work at the labor market, participation in any abroad mobility or professional partnership programmed, and the main professional challenges/problems did he/she face in the labor market. Both mailing address and telephone number were recorded.

The aim of the study was clarified for all participants either on group-based or individual-based to enhance their contribution to the procedures. the researcher held face to face focus groups as well as groups through online applications as zoom or through phone conference calls to answer all inquiries about the questionnaire.

The core values and each sample indicators of the self-assessment PPTCV questionnaire were

explained by evidences in professional terms to enhance accurate and realistic reply of the participants. The researcher contact number and email address were available for participants' inquiries and questions.

The questionnaires were coded to ensure participant anonymity, privacy, and confidentiality. According to information that may reveal the participant identity was not included in the statistical analysis.

For each core value listed, a definition was provided and a set of sample indicators that describe what one would see if the physical therapist were demonstrating that core value in his/her daily practice. Each participant should reply for each core value indicator by checking the frequency with which he/she displays that sample indicators listed in the daily practice, based on the rating scale provided (1-5). The participant was instructed to check only one item that best represents the frequency with which he/she demonstrate the behavior.

The following instructions elucidated for all participants:

- The purpose of the self-assessment questionnaire is to self-assess the frequency with which he/she demonstrates the seven core values, based on the sample indicators that describe what he/she would be doing in daily practice.
- Responses of the participant should be honest, realistic and represent the current status quo.
- This is a self-assessment process with an opportunity for personal learning and insight, identification of areas of strength and growth, and assessment of participant's development in the professionalism maturation process.
- Self-analysis of these questions will help the physical therapist to be accurate and realistic in his/her answers.

Scoring and interpretation:

The researcher reviewed the paper-based and Online formats. If there were missed items, direct personal contact with participants was carried out to ensure achievement of all items scored before interpretation of the questionnaire total score. The scale of total score and sub-scores of the self-assessment format of PPTCV was categorized according to the percentage of the acquired score into six levels [3]. Then the overall scores and score of each of the seven core values were calculated and compared across different categories.

- 1- Level I (very low) indicated <15% of total score.
- 2- Level II (low) indicated 16-30% of total score.
- 3- Level III (moderate) indicated 31-45% of total score.
- 4- Level IV (fair) indicated 46-60% of total score.
- 5- Level V (high) indicated 61-75% of total score.
- 6- Level VI (very high) indicated >75% of total score.

Statistical analysis:

The statistical analysis was conducted by using statistical SPSS Package program version 25 for Windows (SPSS, Inc., Chicago, IL). All statistical analyses were significant at level of probability less than an equal 0.05 ($p \leq 0.05$). The following statistical procedures were conducted:

- Quantitative descriptive statistics data including the mean and standard deviation for all numerical variables.

- Qualitative descriptive statistics data including the number and percentage all categorical variables.

One-way Analysis of Variance (ANOVA) test to compare among professional category within each sub-scales (core values) and also, to compare among sub-scales (core values) within each professional category.

Pearson's correlation to determine the strength and direction of a linear relationship between age and sub-scales (core values) within each professional category.

Spearman-ranked correlation to determine the strength and direction of a linear relationship between gender, university name, qualification degree, work setting, participation in abroad mobility or partnership programmed with sub-scales (core values) within each professional category.

Results

Table (1) Indicates demographic data in all professional categories.

	Practitioner	Specialist	Consultant	Manager
Age (years)	26.50±1.98	30.65±2.98	4.80±5.0	36.00±0.02
<i>Gender:</i>				
Male	26 (20.60%)	80 (54.80%)	16 (72.70%)	2 (33.30%)
Female	100 (79.40%)	66 (45.20%)	6 (27.30%)	4 (66.70%)
<i>Qualifications:</i>				
BSC	122 (96.80%)	78 (53.40%)	0 (0.00%)	16 (72.70%)
MSC	4 (3.20%)	68 (46.60%)	6 (100.00%)	6 (27.30%)
<i>Training programs:</i>				
Yes	8 (6.30%)	12 (8.20%)	0 (0.00%)	4 (18.20%)
No	118 (93.70%)	134 (91.80%)	6 (100.00%)	18 (81.80%)
Professional category number	126 (42.00%)	146 (48.70%)	6 (2.00%)	22 (7.30%)

BSC: Bachelor of physical therapy. MSC: Master of physical therapy.

Table (2): Indicates comparison between the mean values of each core value among all professional categories.

Professional category	Professionalism in physical therapy core values							Total score	Percentage (%)
	Accountability score	Altruism score	Compassion/ care score	Excellence score	Integrity score	Professional duty score	Social responsibility score		
Practitioner	39.73±7.96	18.60±4.57	44.60±8.97	43.24±9.23	48.76±10.20	27.46±5.97	40.38±10.23	262.79±51.70	77.29%
Specialist	42.47±5.92	19.67±3.45	45.18±7.05	44.14±7.20	50.25±7.20	28.66±3.41	41.90±9.04	272.26±35.81	80.08%
Consultant	49.67±0.51	24.67±0.52	54.00±0.89	53.67±1.36	56.00±1.78	34.33±0.51	58.00±0.89	330.33±3.61	97.16%
Manager	45.09±3.91	21.09±2.24	50.36±5.11	50.82±3.77	54.73±5.27	31.00±3.51	49.09±10.74	302.18±26.35	88.88%
Total	176.96±4.23	84.03±2.64	194.14±4.46	191.87±5.08	209.74±3.47	121.45±3.02	189.37±8.05	1167.56±30.63	
Percentage (%)	88.48%	84.03%	88.25%	87.21%	87.39%	86.75%	78.90%	85.85%	
F-value	8.932	7.086	5.918	8.550	4.239	7.386	10.699	9.428	
p-value	0.0001*	0.0001*	0.001*	0.0001*	0.006*	0.0001*	0.0001*	0.0001*	
Significance	S	S	S	S	S	S	S	S	

Data are expressed as mean and standard deviation (SD). r: Correlation coefficients. p-value: Probability value. S: Significant. * Significant ($p < 0.05$).

Table (3): Indicates comparison between mean values of core values at each professional category.

Professional category	Professionalism in physical therapy core values							F-value	p-value	Significance
	Accountability score	Altruism score	Compassion/ care score	Excellence score	Integrity score	Professional duty score	Social responsibility score			
Practitioner	39.73±7.96	18.60±4.57	44.60±8.97	43.24±9.23	48.76±10.20	27.46±5.97	40.38±10.23	2020.471	0.0001*	S
Specialist	42.47±5.92	19.67±3.45	45.18±7.05	44.14±7.20	50.25±7.20	28.66±3.41	41.90±9.04	400.778	0.0001*	S
Consultant	49.67±0.51	24.67±0.52	54.00±0.89	53.67±1.36	56.00±1.78	34.33±0.51	58.00±0.89	901.429	0.0001*	S
Manager	45.09±3.91	21.09±2.24	50.36±5.11	50.82±3.77	54.73±5.27	31.00±3.51	49.09±10.74	108.858	0.0001*	S

Data are expressed as mean and standard deviation (SD).

r: Correlation coefficients. p-value: Probability value. S: Significant. * Significant (p<0.05).

Table (4): Indicates the number of indicators among sub-scores (core values).

Professionalism in physical therapy core values	Number of indicators	Total Score	Obtained score (overall)	Obtained (%) overall
Accountability score	10	50	41.59	83.18%
Altruism score	5	25	19.38	77.52%
Compassion / care score	11	55	45.35	82.45%
Excellence score	11	55	44.33	80.60%
Integrity score	12	60	49.90	83.16%
Professional duty score	7	35	28.38	81.09%
Social responsibility score	12	60	41.94	69.90%
Total score	69	340	270.87	79.66%

Data are expressed as mean and standard deviation (SD).

r: Correlation coefficients. p-value: Probability value. S: Significant. * Significant (p<0.05).

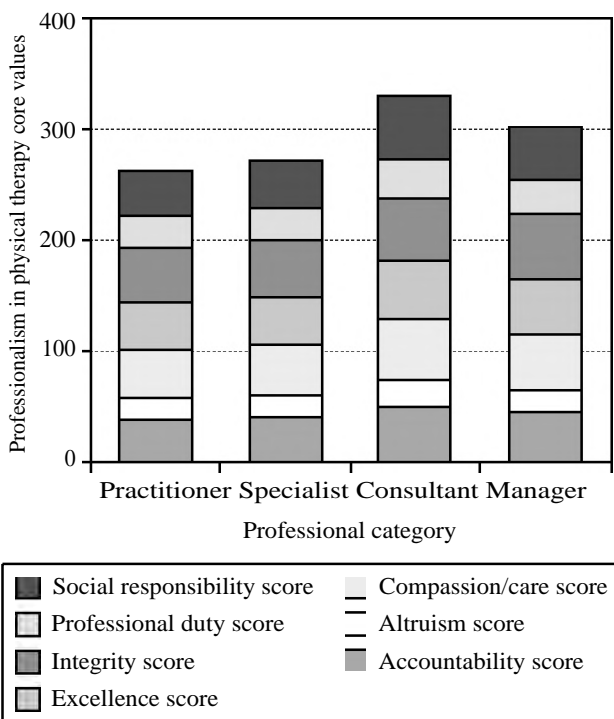


Fig. (1): Indicates comparison between mean values of core values in each professional category.

Discussion

Pediatrics physical therapists demonstrated core values by aspiring to and wisely applying principles of altruism, excellence, caring, ethics, respect,

communication and accountability, and by working together with other health professionals to achieve optimal health and wellness in children and community.

The results of this study indicated that all professional categories revealed very high scores of core values of the PPTCV which reflect a distinguished degree of professionalism; simultaneously the results reported significant variability between different professional categories.

Comparison between the mean of the core values within each professional category indicated that the mean of the core values within the practitioners' category ranged from 67.3% (mean of social responsibility score equals to 40.38±10.23) to 81.27% (mean of integrity score equals to 48.76±10.20), and the corresponding mean core values within the specialists' category ranged from 69.83% (mean of social responsibility score equals to 41.90±9.04) to 84.94% (mean of the accountability score equals to 42.47±5.92). In respect of the consultants' category the mean of the core values ranged from 93.33% (mean of the integrity score equals to 56.00±1.78) to 99.34% (mean of the accountability score equals to 49.67±0.51). However in the managers' category the corresponding mean core values ranged from 81.82% (mean of the social responsibility score equals to 49.09±10.74) to 92.4% (mean of the excellence score

equals to 50.82 ± 3.77). These results revealed that there are significant differences of development of the core values within each of the professional categories ($p=0.0001$; $p<0.05$) which may be attributed to variations of the individuals' ability within each professional category for achieving of the different indicators of each core value. It was observed that the social responsibility has the least score in the categories of the practitioners, specialists and managers which revealed difficulty in achieving of its indicators as compared with the indicators of other core values.

The percentage of the sum of mean of the core values of PPTCV in all professional categories, showed ascending gradual level, with the least values indicated by the practitioners category, and increased gradually in the specialists' category and the managers' category. The highest core values were reported by the consultants' category. The results of the managers revealed lower mean core values of the PPTCV than the corresponding mean values of the consultants, which may be due to work related challenges that face physical therapists managers in some medical health institutions at the remote areas of the governorates, as there may be only one practitioner or specialist who would become also the acting director of the physical therapy department that is contributing to an exaggeration of his/her workload.

Comparison between the percentage of sum of the mean of the core values in all professional category indicated that the highest percentage of sum of the mean core values of the PPTCV was reported in the consultants' category that equals to 97.16%, which may reflect their long experience in pediatrics physical therapy as they work in different contexts as well as they achieved clinical experience from practicing work in different departments at various hospitals and rehabilitation pediatrics centers besides their practicing of training programs, abroad mobility and workshops.

The percentage of the sum of mean core values of PPTCV in both the managers and specialists were 88.88% and 88.08% respectively. These high score values reflect their acquisition of distinguished clinical skills. The least percentage of the sum of mean core values of PPTCV was reported in the practitioners' category that equal to 77.29%, which is attributed to the relatively few years of experience compared to other professional categories.

The percentage of the sum of mean values of different core values in all professional categories

ranged from 78.90% (social responsibility) to 88.48% (accountability) that revealed very high score according to Kumar et al., (2013).

Accountability and compassion and care scores were 88.48% and 88.25% respectively, which reported the highest percentage of the sum of the mean of the core values of all professional categories that reflect the competence of the Egyptian pediatrics physical therapists to respond effectively to the children needs and goals of treatment, skillfully practicing clinical standards, taking into consideration the psychological, social and economic influences of the child and effectively communicate with children, parents and other health care team aiming to achieve continuous quality improvement of the offered services.

The percentage of the sum of mean values of the integrity and excellence scores were 87.39% and 87.21% respectively of all professional categories, which indicate the ability of the physical therapists included in the current study to abide by the regulations and rules applicable to the profession loyalty in practicing their profession. Simultaneously, these results revealed their ability to consistently use recent knowledge and theories and pursuing new evidence to expand knowledge. The percentage of the sum of the mean values of the professional duty score of all professional categories was 86.75% which is attributed to their ability in preserving the safety and confidentiality of the children in different pathological contexts. Simultaneously, this value reflects the relative participation of the different professional categories in the scientific professional activities represented in the training programs, symposia, abroad mobility, etc... The highest score value of the consultants indicated their effective contribution in the training program and workshops, and mentoring of practitioners and specialists to realize their potentials.

A lesser percentage of the sum of mean of the core value was indicated by the altruism score that equals to 84.03% which indicated very high professionalism. This value revealed the ability of the participants of the current study for completing of the child's care and professional responsibility as a first priority for them. The results of the study indicated a relative contribution of the different professional categories in the community based services; for example, free medical convoys to provide physical therapy services to underserved and underrepresented populations.

The least percentage of the sum of the mean values was reported by the social responsibility

score equals to 78.90%. This value is attributed to insufficient achievement of all its indicators. However some of its indicators were achieved effectively such as participating in collaborative relationships with other health practitioners, and participating in official committees that deal with professional-based problems in the Egyptian job market, other indicators have not been sufficiently achieved.

According to Kumar et al., (2013) who evaluated PPTCV in students, educators, researchers and practitioners and administrators, he reported that overall levels of professionalism among Indian physical therapists were moderate, and altruism and compassion levels were low, other indicators were fairly evenly distributed among students and therapists.

Difference in end results between the study of Kumar et al., (2013) and our study is due to difference in population who participated in the study as he evaluated PPTCV in students, educators, researchers, practitioner and administrators but our study evaluated PPTCV in different professional categories (practitioner, specialist, consultant and manager).

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التقييم الذاتي للقيم الأساسية المهنية بين ممارسي العلاج الطبيعي للأطفال

الخلفية: تطوير القيم الأساسية المهنية بين ممارسي العلاج الطبيعي للأطفال هو عامل هام جداً وأساسى فى مهنة العلاج الطبيعي للأطفال.

الهدف من الدراسة: تقييم القيم الأساسية المهنية لممارسي العلاج الطبيعي للأطفال والمقارنة بين الفئات المهنية المختلفة.

طرق وأساليب البحث: أجريت هذه الدراسة عن طريق لقاء مباشر مع المشتركين وكذلك عن طريق الانترنت، وكان عدد الإستبيان الإلكتروني أكبر نتيجة ظهور فيروس الكورونا الذى وضع الكثير من التحديات مثل البعد الإجتماعى وأجريت هذه الدراسة فى ٤ محافظات منهم مستشفيات حكومى و ٢ مستشفى خاص منذ شهر يونيو ٢٠٢٠ إلى شهر مايو ٢٠٢١.

النتائج: أوضحت النتائج أن كل الفئات المهنية للعلاج الطبيعي لديهم نتائج عالية للقيم المهنية الأساسية ولكن على الرغم من ذلك هناك إختلاف بين الفئات المهنية المختلفة.

الاستنتاج: كانت المستويات المهنية لدى ممارسي العلاج الطبيعي للأطفال عالية خاصة فى المسئولية وأقلها كانت للمسئولية المجتمعية وكانت أقل فئة هى الممارسين والأعلى الاستشاريين لذلك لوحظ مستوى أعلى من الاحتراف كلما ارتقت الفئة المهنية.