Development of a List of Affective Competencies and Behavioral Indicators for Physical and Occupational Therapy

Abstract

Background: Affective competencies, as demonstrated by behaviors acted upon by people, are essential components in providing optimal care and receiving trust from patients and clients of physical (PTs) and occupational therapists (OTs). These, along with knowledge and skills, have to be developed early on in the educational system. If these are generated, PT and OT schools will be guided on how to inculcate them in their respective outcomes-based education designs, from planning to assessment. Assessment of the manifestation of these affective competencies is a challenge to educators; thus, the need for behavioral indicators for each. This study developed a list of the necessary affective competencies and their behavioral indicators for PT and OT.

Methodology: A sample of experts from different fields of practice in the PT and OT population groups underwent three rounds of generation and refinement to create a list of affective competencies and their consequent behavioral indicators. To come up with the final list, testing for group consistency was done using Cronbach’s alpha and mean ranks.

Results: Forty-two PT and twenty-five OT experts generated the final list of affective competencies and their behavioral indicators. For the PTs, those competencies are accountability, adaptability/flexibility, altruism, compassion, creativity, diligence, effective communication, ethical reasoning, excellence, honesty,
intiative, passion, patience, perseverance, professionalism, reliability, responsibility, self-reflection, and time management. For the OTs, these are altruism, compassion, conscientiousness, creativity, inquisitiveness, professionalism, and responsibility.

**Conclusion:** The list of affective competencies and behavioral indicators generated by experts in this study were mostly reflective of the existing code of ethics of the professions, with some not stated explicitly but were reflected as such in the behavioral indicators of the other competencies.

**Key Words:** Affective Competencies, Attitudes and Values, Occupational Therapy, Physical Therapy

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**Introduction**

Physical and occupational therapists (PTs & OTs) are health professionals whose main goal is to ensure that their patients and clients perform their daily activities to their maximum potential, despite having physical, mental and social limitations, if they have any. To be able to accomplish that, PTs and OTs undergo training geared towards providing them with expertise in different aspects of health and function in the cognitive, psychomotor, and affective domains of learning.

The information that professionals should know in their field, or knowledge, and activities involving manipulation of things, movement, or language, or psychomotor skills, are two domains of learning usually developed during lecture classes for knowledge and laboratory classes for skills. There is, however, a third, equally important domain that is usually connected with the two other domains in terms of how they are developed: the affective domain, composed of developing an individual’s attitudes and values.

Attitudes are a person’s reaction towards a specific object, which can be a person, a thing, or a situation, and it can either be positive or negative (Sana, 2010). This specific reaction is said to be drive-producing, thereby resulting in overt behaviors being shown by the person (Shaw & Wright, 1967). Attitudes are learned through experiences and social relations, and the reactions vary from person to person and object to object (Sana, 2010). Over time, with consistency in the reactions of a person towards that object, the person develops a set of values reflective of those reactions. Values are the most stable form of a person’s consistent attitude towards an object (Sana, 2010). They are positive signs of satisfaction and contentment on a specific object of interest, thus becoming the guiding principles of how a person lives his life (Andres, 1980).

The professional organizations of PTs and OTs in the country, the Philippine Physical Therapy Association (PPTA) and Philippine Academy of Occupational Therapists, Inc., (PAOT) have documents describing the behaviors expected of PT and OT professionals, such as the Code of Ethics and the Standards of Practice. To be able to develop professionals who are at par with these
organizations’ standards, students must be trained in schools to develop these attributes and behaviors, and for them to internalize enough the attitudes and values underlying these behaviors that will be embedded in them throughout their professional life.

The Commission on Higher Education (CHED), the regulating body of tertiary education in the Philippines, has been developing physical therapy (PT) and occupational therapy (OT) standards for the past years, to ensure production of quality education and graduates. Recently, in its effort to be at par with global standards and remain competitive with other countries, CHED has released the CHED Memorandum Order (CMO) No. 46 series of 2012, mandating the shift to Competency-Based / Outcomes-Based Education (OBE). CHED defined OBE as an approach that aims to produce graduates who are equipped with the knowledge, skills, attitudes, values and ethical conduct, or competencies, necessary for their field of practice or profession (Cuyegkeng et al., 2013). The general program outcomes in PT and OT education, as well as the professional roles and competencies based on these outcomes, have already been identified by the CHED technical panels for PT and OT curricula, in consideration of all types of schools in the Philippines.

According to it, general graduates of baccalaureate degree program should demonstrate the following learning outcomes (CMO 52 & 55, 2017): engage in lifelong learning and understanding of the need to keep abreast of the developments in the specific field of practice (Philippines Qualifications Framework, PQF, level 6 descriptor); effectively communicate orally and in writing using both English and Filipino; work effectively and independently in multi-disciplinary and multi-cultural teams. (PQF level 6 descriptor); act in recognition of professional, social, and ethical responsibility; and, preserve and promote “Filipino historical and cultural heritage” (based on Republic Act 7722).

The outcomes above indicate that out of five, the last three outcomes explicitly belong to the affective domain of learning while the first two are understood to imply the integration of attitudes. There are no concrete and measurable constructs yet under each of these outcomes.

In the same CHED CMOs for PT and OT education, roles expected of PTs and OTs upon graduation were established. Among those involve the following, with the roles showing emphasis on the affective domain of learning: health professional and ethical practice, inter-professional education, lifelong learning (personal / continuing professional development), leader / manager/systems approach to health care, and social advocate/community mobilizer.

The said CMOs also stipulate specific program outcomes for BSPT and BSOT, as well as the specific performance indicators expected of graduates of the program. These are composed of outcomes showing the ability of the graduates to perform their professional, interpersonal, social, innovative, and active learning roles and responsibilities. While there are sample curriculum map and instructional design attached in the CMOs, the attitudinal and behavioral indicators in the affective domain remain at the general level.
This study aims to determine a list of affective competencies and their behavioral indicators necessary for PT and OT graduates to demonstrate, so curriculum planners, policymakers, instructional designers, and educators may plan the development of these throughout the course of the program and facilitate teaching and assessment of these in PT/OT education, whether in the undergraduate or post-graduate level. They are also usually faced with the challenge of stating actual behavioral indicators in the affective domain of learning, making this domain often overlooked in the establishment of outcomes. This study also aims to provide appropriate behavioral indicators for each affective competency.

Method

Research Design

This study utilized developmental research design, or, as defined by Richey (1994), is the “systematic study of designing, developing and evaluating instructional programs, processes and products that must meet the criteria of internal consistency and effectiveness.” The study produced a list of competencies and their indicators that was tested for consistency via expert agreement. The study was divided into three rounds, and the end-result was a list made and refined by the experts and the researcher.

Population of the Study and Sampling Procedure

Purposive sampling was utilized to gather samples for all rounds of the study. A team of experts in the different fields of practice of PT and OT was invited; these fields being: the academe, outpatient clinics, tertiary hospitals, community-based rehabilitation, home health care, and wellness/sports / fitness centers for the PT. Only one PT or OT was invited per institution to avoid having their institutional values and beliefs influence greatly the outcomes of the study.

The inclusion criteria used for the study was as follows:
- They should be primarily practicing in a field they are in for a minimum of five years.
- They should be members of their professional organizations (Philippine Physical Therapy Association [PPTA] and the Philippine Academy of Occupational Therapists [PAOT]).
- They should be working in the Philippines.

Out of all the PTs and OTs who fit the criteria in each institution, the person chosen to be a respondent is the one who either has the highest rank in the institution, is recognized to really be an “expert” in the field by her peers, or has pertinent work in the field as recognized by the institution or the professional body.
Data Gathering Process and Analysis

The data collection procedure was composed of three rounds of generation and refinement of the list. The panel of experts chosen were given letters of consent with full information about the details of the research study, including its scope, process, risks and benefits, and their rights as participants, such as right to confidentiality and protection of their data, and right to voluntarily exit the study anytime. Upon agreement to participate, PT and OT experts were given an open-ended questionnaire either by personal email or by delivering it to them by hand. The questionnaire is a table composed of two columns, one for the affective competencies, and one for the behavioral indicators. They were instructed to write the affective competencies they deemed necessary for PT or OT graduates to have, and the equivalent behavioral indicators of the competencies. A short explanation of the affective domain of learning was given to the experts. The PT and OT experts came up with the list of affective competencies and behavioral indicators by means of three rounds.

Table 1. Methodology of this research study

| Study Round     | Procedure / Method                                                                 | Analysis                                                                 | Output                                                                 |
|-----------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------|
| Generation round| Experts were asked to answer an open-ended questionnaire to generate a list of     | The researcher summarized the list without subjecting the raw data to an  | Extensive list of affective competencies and their behavioral indicators to be used as questionnaire for the next round |
|                 | affective competencies and their corresponding behavioral indicators.             | analysis. Refining in this round involved combining of similar competencies and indicators, eliminating competencies and indicators that do not match the objectives of the study, and clarifying vague and confusing competencies and indicators. |
| Checklist round | Experts were asked to narrow and refine the list to the most essential and         | Analysis was done after the first round by means of frequency distribution. Those competencies and indicators that received less than 25% of the total number of checks from the respondents were eliminated from the list. | A more refined list than the previous round, to be used as questionnaire for the next round |
|                 | relevant. The resulting list of round one was shown to the experts, and they were |                                                                        |                                                                        |
|                 | asked to check the affective competencies they deem to be necessary in PT and OT  |                                                                        |                                                                        |
|                 | graduates, as well as the behavioral indicators that are reflective of each        |                                                                        |                                                                        |
|                 | affective competency.                                                             |                                                                        |                                                                        |
| Ranking round   | The experts were asked to rank each item within the total amount of items based   | For the third round, the rankings given by the respondents for those left after the second round were analyzed per profession, and separately for all the affective competencies and the behavioral indicators per competency. The | Final list of affective competencies and behavioral indicators           |
|                 | on their perceived degree of level of importance.                                 |                                                                        |                                                                        |
| Study Round | Procedure / Method | Analysis                                                                 | Output |
|-------------|--------------------|--------------------------------------------------------------------------|--------|
|             |                    | items under each set of variables (i.e.: affective competencies and behavioral indicators) were analyzed for ranking consistency as a group by means of the Cronbach’s Alpha. Removal of individual competencies were done repeatedly until the group consistency amounted to a 0.8 alpha level for the affective competencies, and 0.7 for the behavioral indicators, which are the acceptable levels of consistency set for this study by the researcher, as supported by literature (Tavakol and Dennick, 2011). Following repeated consistency testing, those which yielded an acceptable consistency rating (Cronbach’s alpha) for the group were included for the final analysis. The last part of this round of analysis involved averaging the ranks of each of the competencies. Those with rankings higher than 50% of the total number of ranks were included in the list, and those that did not were excluded. This was set by the researcher to ensure that majority of the experts were in consensus that the item is considered important and was therefore given a relatively higher rating than others. |        |

**Results**

**Profile of Respondents**

During round one of the study, 42 experts participated from the PT profession, and 25 from the OT. In the PT profession, the nine experts from the academe came from different institutions such as private and state universities, review centers, and universities of some tertiary hospitals. From the community-based rehabilitation field, the two experts have both worked on different CBR locations in the Philippines including Luzon and Visayas. The seven from the outpatient clinics field came from clinics specializing in pediatric and adult population, with different locations such as in the malls, in prominent offices, and as private clinics in the metro. Majority of the seven PTs from the home care
field are freelance PTs, getting their home care patients from referrals or connections from when they were working in hospitals before, and only one of the seven was part of a home care agency. The eleven experts from the tertiary hospital setting came from a mixture of private and government hospitals, with two of those hospitals being specialization hospitals. Of the six experts from the wellness field, one is from a professional sports team, two are from fitness centers, one is from a clinic specializing in sports cases, and two are from college sports centers.

On the other hand, in the OT profession, the five academicians came from a mixture of private and public educational institutions. The thirteen clinicians all have a variety of outpatient clinics they work at, usually one to two days at each place per week. The two experts from the home care setting also have outpatient clinical work but have most of their days in their week working as home care OTs. The five tertiary hospitals where the OT experts came from were a mix of private and government types.

For the succeeding rounds, the number of experts who responded decreased despite the multiple follow-ups of the researcher, but it was still ensured that there were representative experts from each type of institution (e.g.: private and public, etc.).

The table below summarizes the composition of experts who were included in the study:

Table 2. Composition and number of experts who were part of the Delphi Technique

| Field of practice | Profession | Round 1: Generation Round | Round 2: Checklist Round | Round 3: Ranking Round |
|-------------------|------------|---------------------------|--------------------------|------------------------|
| Academe           | PT         | 9                         | 5                        | 5                      |
|                   | OT         | 5                         | 5                        | 5                      |
| CBR               | PT         | 2                         | 1                        | 1                      |
|                   | OT         | 0                         | 0                        | 0                      |
| Clinic            | PT         | 7                         | 5                        | 5                      |
|                   | OT         | 13                        | 5                        | 5                      |
| Homecare          | PT         | 7                         | 5                        | 5                      |
|                   | OT         | 2                         | 2                        | 2                      |
| Hospital          | PT         | 11                        | 5                        | 5                      |
|                   | OT         | 5                         | 5                        | 5                      |
| Wellness Centers  | PT         | 6                         | 5                        | 5                      |
| Totals            | PT         | 45                        | 26                       | 26                     |
|                   | OT         | 25                        | 17                       | 17                     |

Generation Round

At the end of round one, there was a total of 81 affective competencies for the PT profession and 34 for the OT profession, with similar terms counted as one. For the behavioral indicators, there
are 210 for the PT profession and 108 for the OT profession.

Initial refining was done by the researcher to the list generated from round one. Synonymous competencies were combined and a more encompassing competency was retained for those combined. For the PT profession, examples of this are collaboration and teamwork, taking ownership and accountability, both knowledgeable and skillful and excellence, respect and courtesy for others, observant and attentive, resourceful and creative, discriminative of professional behaviors and professionalism, and open communication and honesty. For the OT profession, an example of this is team orientation and teamwork. Vague terms used as competency were either removed from the list, such as embraceable, practicing highest ethical standards, and cultivation of learning habits for the PT profession, or replaced with more concise and definitive terms that are already existing in the list, such as being cool, calm and collected when multitasking for composure, and responsibility to improve one’s self for excellence, also in the PT profession. Some competencies for the PT profession were combined based on what their behavioral indicators seem to be describing, such as maintaining cleanliness of their classroom or work area, which was under the competency aesthetic sensitivity, which was then combined with professionalism. As for the behavioral indicators of the PT profession, those that were not appropriate with what was asked by the questionnaire given were removed, such as those pertaining to classroom activities like gaining trust of teachers and using enough time during laboratory sessions to practice. Behavioral indicators that seem repetitive by being written under two or more different competencies were removed, with only the indicator paired with the most appropriate affective competency retained. An example of this for the OT profession is dressing professionally, which was indicated under both the confidence and professionalism competencies, and for the PT profession, communicates effectively with his colleagues both inside and outside the clinics, which was indicated both for effective communication and good interprofessional relationship, obeying ethical practices in the field one is assigned to, which was indicated under both ethical reasoning and professionalism, and owning up to one’s actions and mistakes, which was indicated both under trust and accountability. Behavioral indicators that are not clear enough or do not clearly reflect affective competencies, such as promoting certain causes for the advocative competency, and performing PT exercises the proper way for the discipline competency.

At the end of round one, the number of affective competencies for the PT profession decreased from 81 to 43, and from 34 to 27 for the OT profession. For the behavioral indicators, the numbers decreased from 210 to 141 for the PT profession, and from 108 to 102 for the OT profession.

For the second round, those which received less than 75% of checks were removed from the list. This further decreased the count of affective competencies from 43 to 42 for the PT profession, and 27 to 20 for the OT profession. Among those that were removed were motivational for the PT profession, and balance, collaboration, ethical code, realistic, resilience, socialization, and teamwork for the OT profession. For the behavioral indicators, the PT profession’s count decreased from 141 to 130, and 102 to 72 for the OT profession. Removal of an affective competency merited
removal of all its behavioral indicators.

**Essential Affective Competencies and Behavioral Indicators in PT Education**

Table 3 presents the final list of essential and appropriate affective competencies as well as behavioral indicators expected of PT graduates. These competencies included those that yielded a group Cronbach alpha of 0.8026. Those competencies whose presence in the list decreased the value of the alpha were eliminated. Corresponding to each of the competencies are the generated behavioral indicators with Cronbach alpha of ≥ 0.70. For the rankings, an acceptable level of 50% was set for both the affective competencies and the behavioral indicators. On the side of the average ranking per behavioral indicator, in parentheses, are the acceptable rankings per group of indicators under each competency. Some rankings have been adjusted due to a smaller number of behavioral indicators for that competency. For sole behavioral indicators per affective competency, there was no ranking done. That indicator will be automatically part of the list.

**Table 3. Final list of essential and appropriate affective competencies and behavioral indicators for graduates of the PT profession**

| Affective Competencies | Average Ranking (50%=18) | Behavioral Indicators | Average Ranking (50% value indicated per competency) |
|------------------------|--------------------------|-----------------------|-----------------------------------------------------|
| Accountability         | 12.46                    | Accepts consequences of actions undertaken without getting back at the persons involved | 1.69 (2.15) |
|                        |                          | Provides corrections, revisions, updates to the client’s plan of care based on their (new) goals, current level of function and/or presence of new complaints | 2.15 (2.15) |
| Adaptability / flexibility | 13.88                  | Continues to work well with the team, when a suggestion or point is vetoed in a meeting/conference | 2.04 (2.05) |
|                        |                          | Able to adjust and do correct procedure/s in critical situations, time pressure, increase of workload, simultaneous clients | 1.77 (20.05) |
| Altruism               | 12.5                     | Unselfishly shows his feelings, behavior, and devotion to the welfare of clients, making them and their needs a priority above anything else | No ranking needed |
| Compassion             | 11.42                    | When neglect is suspected, reminds the caregivers of their role in the rehabilitation of the client/patient, and following up with the appropriate medical and legal authorities, as appropriate | 5.92 (6) |
|                        |                          | Tempers own emotions and puts the client’s sanctity first above all, despite how difficult or uncooperative the patient or co-professional may be | 5.81 (6) |
|                        |                          | Listens to clients’ concerns with regards to his condition | 4.81 (6) |
| Affective Competencies | Average Ranking (50%=18) | Behavioral Indicators | Average Ranking (50% value indicated per competency) |
|------------------------|--------------------------|-----------------------|--------------------------------------------------|
| Acknowledge clients'/ colleagues' feelings and concern and provide an environment where the client/colleague can comfortably and freely express what they want you to know | 5.46 (6) |
| Learns more about the client's social, occupational, emotional, environmental, educational background / capabilities / behaviors / preference through client and family rapport / formal and informal interviews | 4.5 (6) |
| Comes up with novel ideas on how to better deal with administrative tasks or when assigned a project | 2.19 (2.5) |
| Uses techniques and strategies that are not typical, indigenous and acceptable to local practice | 2.5 (2.5) |
| Submits completed reports and documentations on time | No ranking needed |
| Treatment plan includes well-thought of strategies appropriate to address the problems of their client | No ranking needed |
| Verbal or non-verbal practice of taking consideration of individual difference, learning, cognition, belief, political | No ranking needed |
| Explains treatments and procedures in a way the clients, family and caregivers can understand | No ranking needed |
| Engaging in evidence-based practice, especially in communicating the results of the information gathered to the caregivers | 2.77 (3.5) |
| Regularly updating knowledge and skills base by attending continuing professional education seminars/workshops | 3.19 (3.5) |
| Admits own limitations by seeking answers to questions that one doesn't know the answer to – reading literature, doing evidence-based practice, seeking expert opinion, and continuing education | 3.5 (3.5) |
| Looks at how one can contribute to betterment of the profession – whether in research, policy development | 3.5 (3.5) |
| Reports facts about client’s status and does not falsify documents | 1.46 (2) |
| Is truthful; does not give false hope to clients | 2 (2) |
| Doing things as necessary even when no one is looking | No ranking needed |
| Affective Competencies | Average Ranking (50%=18) | Behavioral Indicators | Average Ranking (50% value indicated per competency) |
|------------------------|--------------------------|-----------------------|---------------------------------------------------|
| Consistently adheres to ethical and moral standards set by the school/facility and to the principles of professionalism | 1.96 (2.5) |
| Practices honesty and accountability at all times | 2.23 (2.5) |
| Passion | 18.04 | Shows love for profession | No ranking needed |
| Patience | 18.23 | Remains calm and does not become annoyed especially on handling irritated clients, difficult patients, and pediatric cases | No ranking needed |
| Perseverance | 16.73 | Does not easily give up with difficult tasks | No ranking needed |
| Professionalism | 7.35 | Always on time during classes, clinic hours and treatment schedules | 10.58 (11) |
| Submits requirements on time, including cohesive and on time submissions of patient charting | 9.19 (11) |
| Engages in discussions/conversations in a tactful manner with peers, teachers, doctors/other members of the rehabilitation team | 8.04 (11) |
| Uphold the patient’s best interests | 4.12 (11) |
| Uphold the ethical considerations and put them into practice | 2.54 (11) |
| Acts professional in front of the patient | 9.54 (11) |
| Talks to patients in friendly but professional manner | 10.27 (11) |
| Ensures accurate reporting of information, without ulterior motives of making one look better for professional gain and competitiveness | 5.73 (11) |
| Does not try to undermine the work or decisions of other professionals towards a patient. Rather, would work hand-in-hand with them to deliver better patient care service delivery | 8.54 (11) |
| Reliability | 16.27 | Comes in time and avoids absences | No ranking needed |
| Gives advanced notice when absent or late | No ranking needed |
| Responsibility | 13.73 | Reports to work & finishes work on time | 2.04 (2.05) |
| Initiates and completes work-related activities independently | 1.73 (2.05) |
| Self-reflection | 16.81 | Modifies tests or strategies based on context (client or environmental) | 2.42 (2.45) |
| Questions own decisions and seeks answers to own questions | 2.08 (2.45) |
| Time management | 18.90 | Maximizes the treatment plan of the patient for one-hour session including PT/OT notes and some home instructions | No ranking needed |
To arrive at an internal consistency rating that is acceptable; i.e. a Cronbach’s alpha rating of 0.8, the following affective competencies were removed from the list: active learning, health consciousness, and respect.

Essential Affective Competencies and Behavioral Indicators in OT Education

For the affective competencies and behavioral indicators for the OT profession, the same process was done for every affective competency and group of behavioral indicators under each affective competency, with the acceptable Cronbach’s alpha score set to 0.8003 for the affective competencies and 0.7 for the behavioral indicators. For affective competencies with only one behavioral indicator, the behavioral indicator is automatically part of the final list. Following the same process, the italicized behavioral indicators were left in the list. Those who were ranked will be included if their mean score is lower in value than the acceptable ranking, as mentioned per competency.

For the affective competencies and behavioral indicators for the OT profession, the same procedures were done for every affective competency and group of behavioral indicators under each affective competency, with the acceptable Cronbach’s alpha score set to 0.8003 for the affective competencies and 0.7 for the behavioral indicators. For affective competencies with only one behavioral indicator, the behavioral indicator is automatically part of the final list, thus, no ranking was necessary. Following the same process, the following behavioral indicators were left on the list. Those who were ranked will be included if their mean score is lower in value than the acceptable ranking, as mentioned per competency. For each behavioral indicator, the acceptable ranking is in parentheses near the average ranking per indicator, with some adjusted in accordance to the total number of behavioral indicators per competency.

Table 4. Final list of essential and appropriate affective competencies and behavioral indicators for graduates of the OT profession

| Affective Competencies | Average Ranking (50%=8) | Behavioral Indicators                                                                 | Average Ranking (50% value indicated per competency) |
|------------------------|-------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------|
| Altruism               | 7.06                    | Entertains inquiries/concerns (e.g., from parents/caregivers of clients) even after clinic/work hours | No ranking needed                                    |
| Compassion             | 7.9                     | Open to adjustments or meeting half way in terms of demand from patient vs his mood on that day, giving special considerations to the parent preferences in making decisions with the intervention | No ranking needed                                    |
| Conscientiousness      | 3.88                    | Uses appropriate standardized assessment tool (even if laborious) or informal evaluation method (to further investigate or confirm prior findings) depending on what the patient needs | 2.35 (2.35)                                          |
| Affective Competencies | Average Ranking (50% = 8) | Behavioral Indicators                                                                 | Average Ranking (50% value indicated per competency) |
|------------------------|---------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------|
| Affective Competencies |                           | Manages client's time (i.e., session) wisely and properly, making sure that client performs preparatory task/s, purposeful task/s, and occupation-based activity/ies | 2.18 (2.35)                                           |
| Creativity             | 8.41                      | Identifies ways to adapt treatment tools or therapy set up that meets the needs of the patient | No ranking needed                                     |
|                        |                           | Incorporates fun treatment activities that holds the patient's interests and encourages them to participate | No ranking needed                                     |
| Inquisitiveness        | 8.06                      | Always studies regarding the best and latest case or management technique                | 4.06 (5.5)                                            |
|                        |                           | Updates himself with the recent trends in practice                                        | 4 (5.5)                                               |
|                        |                           | Finds time to discuss things/course of intervention with colleagues/co-interns/seniors   | 5.47 (5.5)                                            |
|                        |                           | Studies/researches cases/conditions more in-depth (i.e., reading books, journal articles) as well as intervention strategies | 5.47 (5.5)                                            |
|                        |                           | Willing to undergo mentorship program, seminars, certifications, trainings, courses       | 5.24 (5.5)                                            |
| Professionalism        | 7.76                      | Treats patients equally                                                                  | 2.94 (5.76)                                           |
|                        |                           | Maintains a healthy staff interpersonal relationship                                       | 5.76 (5.76)                                           |
|                        |                           | Demonstrates appropriate conduct of self                                                | 4 (5.76)                                              |
|                        |                           | Communicates tactfully using politically-correct terms                                    | 3.83 (5.76)                                           |
|                        |                           | Observes rules and policies                                                              | 5.12 (5.76)                                           |
|                        |                           | Demonstrates respect for others’ values and practices                                     | 4.94 (5.76)                                           |
|                        |                           | Collaborates with and considers the suggestions of other professionals                   | 5.71 (5.76)                                           |
| Responsibility         | 8.65                      | Be liable to patients being treated                                                      | 3.1 (3.5)                                             |
|                        |                           | Completes expected tasks correctly and effectively                                       | 2.71 (3.5)                                            |
|                        |                           | Completes expected tasks even if not directly supervised                                 | 3.18 (3.5)                                            |

Following the same processes that PT experts underwent, the affective competencies were retained to achieve a Cronbach's alpha of 0.8, after removing the following from the list: time management, cooperation, approachability, and self-reflection.
In the final list of affective competencies that were included in the top 6 ranks by the experts, accountability, altruism, compassion, excellence, and integrity were also mentioned by American Physical Therapy Association (APTA, 2012) as part of their vision for professional PTs to demonstrate by 2020. As health care professionals who are deemed as “movement experts,” PTs are expected to be very knowledgeable and skillful in their field and at the same time be able to handle their clients well in all aspects. Thus, the top ranks given by the experts are affective competencies which reflect those. In the current CHED CMO for PTs (CMO 55, 2017), competencies such as integrity, professional behavior (or professionalism), ethical reasoning, and effective communication were explicitly mentioned as performance indicators for some of the program outcomes. Edge and Groves (1999) identified seven bioethical principles that should be demonstrated by health care professionals at all times, but out of those seven, only honesty (veracity) can be seen in this list.

Teamwork, love for country, and confidentiality have been mentioned in the previous studies but were not deemed important enough by the experts and therefore did not make it to the final list of competencies, with confidentiality even ranking in the bottom five. PTs in the Philippine setting more commonly deal with clients on a one-on-one basis and rarely have multidisciplinary cases unless they are in the hospital setting (case conferences) or pediatric clinical setting (team teaching or rehabilitation with OTs and speech and language pathologists). Confidentiality is commonly deemed important by many documents in other countries, as well as the code of ethics of PTs and OTs in the Philippines, but was not deemed important enough by the experts. A study by Antonio, Patdu, and Marcelo (2016) supports this by saying that health information privacy in the Philippines is lacking due to the following factors: the lack of a standard health information privacy policy in the country, with those present being either too general or too specific, and the seemingly lacking “privacy culture” of the Philippines, replaced often by the culture of gossip. Technology and innovations such as social media are also contributing factors to this. Autonomy, justice, beneficence, and non-maleficence were some affective competencies that were mentioned in those studies as well as the PPTA Code of Ethics (PPTA, 2000), but were not generated in phase one of this study. Some behavioral indicators for the said competencies, however, can be seen under some of the affective competencies in the list, such as treating prioritizing the patients’/clients’ welfare above one’s own, which is under altruism. This may go to show that even acknowledged under another competency, the said competencies were still deemed necessary by the experts.

Similar to the PT profession, competencies which allow the OT professionals to excel in knowing and performing necessary professional skills and in dealing with clients were deemed most important by the experts, such as altruism, compassion, and inquisitiveness. The study by Kaasar and Muscari (2000) is in agreement that professionalism is an important affective competency to have for the OT profession. Edge and Groves (1999) and the OT Code of Ethics (OTAP, 1998) have also listed affective competencies that are expected of OT professionals but were not reflected in this list.
Common to those are justice, veracity, autonomy, beneficence, and non-maleficence.

The affective competencies deemed essential for PT and OT graduates to have were comparable to the respective professions’ code of ethics requirement for professional PTs and OTs. Compassion, professionalism, honesty, and ethical reasoning are among those competencies that have been explicitly mentioned in the code of ethics (PPTA, 2000; PAOT, 2000). The other competencies can be deduced by comparing their behavioral indicators to the explicitly mentioned behavioral requirements under each competency in the code of ethics, and vice versa. Altruism, excellence, teamwork, and integrity are some of those competencies. This reflects how the behaviors and beliefs of the experts were also shaped by the code of ethics of their respective professions during their practice, thus expecting the same of graduates about to enter the professional world of PT and OT. Being health care professions geared towards caring for the needs of patients and clients, competencies such as those mentioned above are necessary to ensure patient and client care is optimal, and will not render the patients and clients powerless, frustrated, and frightened (Halligan, 2008). The importance of ensuring manifestations of these competencies and behaviors is to gain the trust of patients and clients, which, according to Halligan, is the very core of effective medical care.

The affective competencies and behavioral indicators elicited by the experts for each profession do not deviate much from each other, with professionalism, altruism, and compassion being similarly identified for both professions. Competencies ensuring continuous, active learning, such as inquisitiveness for the OTs and active learning and excellence for the PTs, were also given emphasis by both professions, as well as competencies ensuring practice of high moral standards towards all members of the healthcare team, such as responsibility, integrity, honesty, and patience. Competencies that level up the ability of OTs and PTs to ensure that their techniques match the demands of the client and patient, such as creativity and flexibility, were also deemed important by both sets of experts. The scope of practice of PT and OT practice, both allied medical professions, do not veer too far from each other, both concerned with the assessment and screening, evaluation, intervention, and community reintegration of clients and patients (PPTA, 2000; PAOT, 2000).

Conclusion

The study was able to identify affective competencies that experts deem are necessary for PT and OT practice in the Philippines. Reflecting these competencies are indicators that showcase how PTs and OTs should behave to demonstrate the said competencies. The affective competencies identified by the experts were reflective of the code of ethics of both professions, reflecting both that experts were cognizant of the affective competencies they should be manifesting as professionals, and that the affective competencies necessary to perform rehabilitation of patients and clients for both professions were almost the same. Although there are affective competencies that are not explicitly present in the expert-generated and refined list, the behavioral indicators of the existing
affective competencies were also able to cover some of the lacking competencies. Overlap in the definitions and descriptions of the competencies and what they mean to healthcare professionals may not be standard and therefore it is important to always include behavioral indicators when describing them.

**Recommendations**

The sample used in the study was limited, with the number per field of practice inequivalent. To further validate the results of this study, consensus of a larger population of PTs and OTs in the Philippines would be recommended, using Delphi technique. Focused studies of the same nature per field of practice in PT and OT can also further enhance the results, giving the readers a clear picture of what affective competencies are necessary per field of practice. A questionnaire made from the results of the study and validated statistically may also be useful for PT professionals in the country, for assessing students and licensed professionals alike.

**References**

American Physical Therapy Association. (2012). *Professionalism in Physical Therapy: Core Values*. Retrieved from [http://www.apta.org/uploadedFiles/APTAorg/About_Us/Policies/Judicial_Legal/ProfessionalismCoreValues.pdf](http://www.apta.org/uploadedFiles/APTAorg/About_Us/Policies/Judicial_Legal/ProfessionalismCoreValues.pdf)

Andres, T. (1980). *Understanding Values*. Philippines: Tomas D. Andres and New Day Publishers.

Antonio, C., Patdu, I. & Marcelo, A. (2016). Health information privacy in the Philippines: Trends and challenges in policy and practice. *Acta Medica Philippina*, 50, 4, 223-236.

Bork, C. [Ed]. (1993). Research in Physical Therapy. Pennsylvania: J. B. Lippincott Company.

Campbell, A., Chin, J. & Voo, T. C. (2007). How can we know that ethics education produces ethical doctors? *Medical Teacher*, 29, 5, 431-436. doi: [https://doi.org/10.1080/01421590701504077](https://doi.org/10.1080/01421590701504077)

Commission on Higher Education. (2012). CHED Memorandum Order No. 46, Series of 2012. Retrieved from [http://ched.gov.ph/cmo-46-s-2012/](http://ched.gov.ph/cmo-46-s-2012/)

Commission on Higher Education. (2017). CHED Memorandum Order No. 52, Series of 2017. Retrieved from [http://ched.gov.ph/19764-2/](http://ched.gov.ph/19764-2/)

Commission on Higher Education. (2017). CHED Memorandum Order No. 55, Series of 2017. Retrieved from [http://ched.gov.ph/cmo-no-55-series-of-2017-policies-standards-and-guidelines-for-the-bachelor-of-science-in-physical-therapy-bspt-education/](http://ched.gov.ph/cmo-no-55-series-of-2017-policies-standards-and-guidelines-for-the-bachelor-of-science-in-physical-therapy-bspt-education/)

Cuyegkeng, M. A., Detoya, G., Lapitan Jr., L., Laurito, A., Lorenzo, F. M.,…Vicencio, E. (2013). CHED Implementation Handbook for OBE and ISA. Retrieved from [https://docs.google.com/viewer?u=a&view=fitw&pid=sites&srcid=ZGVmYXVsdGRvbGRvbWFpbydHJmYWN1bHR5d29ya3Nob3B8Z3g6NDUxOTg4MTMwYzI4OTg1Yw](https://docs.google.com/viewer?u=a&view=fitw&pid=sites&srcid=ZGVmYXVsdGRvbGRvbWFpbydHJmYWN1bHR5d29ya3Nob3B8Z3g6NDUxOTg4MTMwYzI4OTg1Yw)

Edge, R. & Groves, J. R. (1999). Ethics of Health Care, 2nd ed. Singapore: Thomson Learning Asia.

Fraenkel, J., Wallen, N. & Hyun, H. (2012). *How to Design and Evaluate Research In Education*, 8th ed. NY: McGraw-Hill.

Galbraith, R. & Jones, T. (1976). *Moral Reasoning: A Teaching Handbook for Adapting Kohlberg to the*
Classroom.

Habibi, A., Sarafrzai, A., & Izadyar, S. (2014). Delphi technique theoretical framework in qualitative research. The International Journal of Engineering and Science, 3, 4, 8-13.

Halligan, A. 2008. The importance of values in healthcare. Journal of the Royal Society of Medicine, 101 (10), 480-481. doi: https://dx.doi.org/10.1258%2Fjrsm.08k019

Harmin, M., Kirschenbaum, H. & Simon, S. (1973). Clarifying Values through Subject Matter. Minneapolis: Winston Press.

Henerson, M., Morris, L. & Fitz-Gibbon, C. (1987). How to Measure Attitudes. California: SAGE Publications.

Kasar, J. & Muscari, M. (2000). A conceptual model for the development of Professional behaviors in occupational therapists. Canadian Journal of Occupational Therapy, 67, (1), 42-50. doi: https://doi.org/10.1177/ 000841740006700107

Lockwood, A. (2009). The Case for Character Education: A Developmental Approach. New York: Teachers College Press.

Miller, M. D., Linn, R. & Gronlund, N. (2009). Measurement and Assessment in Teaching, 10th ed. New Jersey: Pearson Education, Inc.

Philippine Academy of Occupational Therapists, Inc. (2000). Occupational Therapy Code of Ethics. Retrieved from http://paot.org.ph/pdf/profpractice/Code%20of%20Ethics%20(1998).pdf

Philippine Academy of Occupational Therapists, Inc. (2017). Occupational Therapy Standards of Practice. Retrieved from http://paot.org.ph/pdf/profpractice/Standards%20of%20Practice%20(1998).pdf

Philippine Physical Therapy Association. (2000). Code of Ethics of the Philippine Physical Therapy Association. Retrieved from http://www.philpta.org/?page_id=1030

Philippine Physical Therapy Association. (2000). Standards of Practice for Physical Therapy in the Philippines. Retrieved from http://www.philpta.org/?page_id=1030

Raths, L., Harmin, M. & Simon, S. (1966). Values and Teaching. Ohio: Charles E. Merrill Publishing Co.

Richley, R. (1994). Developmental Research: The Definition and Scope. Paper presented at Proceedings of Selected Research and Development Presentations at the 1994 National Convention of the Association for Educational Communication and Technology. Nashville.

Ries, E. (2013, September). The Power of Professionalism. PT in Motion Magazine, 16-24.

Sana, E. [Ed]. (2010). Teaching and Learning in the Health Sciences. Quezon City: The University of the Philippines Press.

Schwitzgebel, R. & Kolb, D. (1974). Changing Human Behavior: Principles of Planned Intervention. USA: McGraw-Hill.

Shaw, M. & Wright, J. (1967). Scales for the Measurement of Attitudes. New York: McGraw Hill Book Company.

Tavakol, M. & Dennick, R. (2011). Making sense of Cronbach's alpha. International Journal of Medical Education, 2, 53-55. doi: https://dx.doi.org/10.5116%2Fijme.4dfb.8dfd

Teijilingen, E. & Hundley, V. (2001). The importance of pilot studies. Social Research Update, 35. Retrieved from sru.soc.surrey.ac.uk/SRU35.html

Wilkinson, T., Wade, W. & Knock, L. D. (2009). A blueprint to assess professionalism: Results of a systematic review. Academic Medicine, 84(5), 551-558. doi: 10.1097/ACM.0b013e31819fbaa2
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