



**ORIGINAL RESEARCH PAPER**

**Education**

**TEACHING DIETETICS THROUGH ROLE PLAY – INNOVATION IN EDUCATION**

**KEY WORDS:** Role Play, Counseling, communication skill and dietetics

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**ABSTRACT**

The educator's role has evolved from not only being the content expert, but also a developer of life-long learning. The ability of this generation also adds to the shift in teaching strategies. The purpose of this study was to assess undergraduate nutrition and dietetics students counseling abilities through role-playing sessions in a dietetics class via a qualitative counseling tool. The 30 second year undergraduate students of 2017 batch received the patient's details a day before to each role play session for preparation and participated in three role play sessions for thirty minutes each. Counseling and communication skills were scored based on 10 indicators in modified qualitative counseling tool. Students improved on ten criteria indicators of the qualitative counseling tool from session I to session III. Students received a consistently positive contemplation on keeping eye contact, self-confidence, tone of voice, body language, addition of relevant questions, and preparedness for each session. The t value is significant at  $p < 0.5$ . Role-playing and counseling activities in an undergraduate classroom can improve the communication skills of dietetic students and this will enrich their skills to provide efficient nutrition counseling to future patients.

**Introduction**

Today's educator must understand their millennial generation audience. By understanding the millennial student and how they learn, the educator will be more successful in creating a learning centered environment. The educator's role has evolved from not only being the content expert, but also a developer of life-long learning (Barkely et al., 2005).

Dietetics is the branch of knowledge concerned with the diet and its effects on health, especially with the practical application of a scientific understanding of nutrition. A dietitian is an expert in dietetics who alters their patient's nutrition based upon their medical condition and individual needs. (Lee and Jason, 2013).

Role playing is the best way to develop the skills of initiative, communication, problem-solving, self-awareness, and working cooperatively in teams, and these are above all—certainly above the learning of mere facts, many if not most of which will be obsolete or irrelevant in a few years—will help these young people be prepared for dealing with the challenges of the Twenty-First Century (Blatner, 2009).

In a qualitative study conducted by Horrell and Andrade (2018) at a Mid-Western University in fall 2016 in a nutrition therapy class, each student (2 males, 6 females) counseled a graduate student (i.e. the patient) for a total of 5 sessions. Counseling abilities were identified as positive, neutral, or negative based on the 9-item qualitative counseling tool. Results revealed that students improved on rapport building, prioritizing information, and reducing the use of nutrition jargon and remained positively consistent on eye contact, body language, relevant scope of questions, and preparedness.

Students can improve their counseling skills before entering in the dietetics field through an active learning approach like role play in the classroom. Thus, the purpose of this study was to assess undergraduate nutrition and dietetics students' counseling abilities through role-playing sessions in a dietetics class via a qualitative counseling tool.

**Methodology**

The Dietetics course is offered once per semester for 15 weeks and meets five times per week. This course is required for nutrition and dietetics students to complete graduation and students generally take it in their second year. In 2017, 30 dietetic students, 4 males and 26 females, were enrolled in the course. Despite of the number of students in the course, this

sample size was sufficient for a qualitative study as each subject was exposed to multiple observations. Each observation is considered an independent observation (i.e.  $n=30$ ). The course covered hospital routine diets, communicable diseases, non-communicable diseases and the medical nutrition therapy to prevent or reduce complications associated with diseases. In first 10 weeks the instructor taught both the theory and practical aspects of the course. The Nutrition Care Process and counseling skills and techniques were presented to students and were provided with an overview of the Nutrition Care Process Model.

**Counseling Sessions and Scenarios**

One month prior to the role play start date, the instructor revised five case studies peptic ulcer, anemia, type-2 diabetes, atherosclerosis and cancer. These revised case studies were reviewed by a registered dietitian in a reputed multi-specialty hospital. Usually in hospitals the dietitians receive medical reports with information prior to meeting with patients. The instructor adapted a simulated, paper-based medical reports based on the data found in the case studies, which included age, gender, race and ethnicity, current height and weight, medical history, laboratory values and medications. Information on diet history, eating behaviors, food frequency pattern, food choices, food allergy and physical activity was left out. Students were expected to acquire this information during the role play sessions. The dietetic faculty played the role of the "patient" at each role play session.

**Role play Sessions**

Students received the patient's details a day before to each role play session for preparation. Each week, the counseling sessions were held in three consecutive days. All subjects participated in three role play sessions. Thirty minutes were provided to students to counsel the patient in the each session. Anthropometry assessments, dietary analysis and nutritional diagnosis of the patient were done during the role play session by the students and then they counseled the patient. The students counseled the dietetic faculty in a private room provided in the institution. Students were allowed to bring their nutrition educational materials and calculator to calculate nutritive value of foods which were necessary for the counseling sessions. The dietetic faculty noted non-verbal skills throughout the session. The session was recorded by smart phone to assess verbal skills.

The investigator used the counseling criteria tool displayed in table-1 with a five point rating scale poor, fair, good, very good and excellent. The investigator scored it and analyzed to

find the counseling and communication skill improvement by participating in role play session.

**Table-1 Quality indicators and descriptors**

S.No	Indicators	Descriptors
1	Building rapport	Introduce self and role; Explain purpose of counseling objectives; explain the purpose of the visit; Respect, Understanding, Listening Skills, Empathy throughout the counseling session
2	Eye-contact/	Maintained eye contact throughout the session
3	tone of voice	Portrayed a confident/positive/non-threatening/ non-condescending tone of voice throughout the session
4	Body Language	Gestures- Shakes hand at the beginning/end of session; talks with hands when explaining about portion sizes, examples of food Facial expressions- Maintains neutral facial expressions; smiles when appropriate; does not have a condescending look (frowning the brows, frowning, dropping mouth open) Posture- Sits up straight, but relaxed; leans in slightly; non-crossed arms; faces the patient
5	Expression of empathy and compassion for patient	Listens to the patient and reads cues from the patient concerning emotions connected to the disease, environment, or social issues; responds appropriately (e.g. does not ignore the struggles one may have with changing their behavior)
6	Listening Skills/Scope of Questions asked	Asks open-ended questions; provided full/undivided attention when patient was speaking; Repeats or summarizes information provided from patient to ensure the student was listening; Took notes, but did not spend the entire session typing/writing
7	Nutrition Knowledge	Explains complicated nutrition information in lay-person's term, Chunks and checks the information provided, stops and asks the patient for clarification to ensure the patient understood the information; Provides examples and explains information by using analogies
8	Personal and Religious based Preferences	Asks patient about preferences based on religion and culture; Asks clarification questions to ensure the student understood about the patient's religious/cultural preferences; Provided information adhering to these preferences; Did not judge patient based on body language
9	Prioritizing important information	Provided information based on patient's readiness or agreeableness to make certain changes; Did not overwhelm the patient with information; Included a minimum of 1 goal with the patient and focused on that particular goal when explaining information
10	Preparation	Student was organized; prepared questions prior to the session; spoke confidently; understood about disease state and the type of information to provide patient; provided additional educational materials

Source: Counseling skills identified from: AIPC2 ; Academy of Nutrition and Dietetics: Nutrition Care Process

**Results**

All the selected students participated in three role-play counseling sessions and completed the evaluation survey at the end of each session. The average time for sessions I, II and III were 16.55, 21.26, and 28.12 minutes. The net average duration for all sessions was 21.97 minutes. Around five students consistently used the full 30 minutes to counsel their patients in all their sessions. Sixteen students spent between 20-22 minutes to counsel their patients in all their sessions. Nine students spent less than 15 minutes to counsel their patients in all their sessions.

**Student's communication and counseling abilities**

All the thirty subjects underwent three role play sessions and the investigator rated each subject for each session by using the score card. The scores for each session for all the participated subjects were displayed below in table-2.

It was clear that the analysis revealed over the three sessions. Students improved or remained consistently positive on ten criteria indicators of the qualitative counseling tool. Students received a consistently positive consideration on keeping eye contact, self-confidence, tone of voice, body language, addition of relevant questions, and preparedness for each session. Two students received lower scores on their preparedness for sessions II and III in comparison to the first session. Over the period of the three sessions, students improved on rapport building, prioritizing information, use of education materials and subject knowledge with nutrition terminology. In session I students received a poor rating in rapport building, eye contact, tone of voice, body language, priority to patients and usage of education materials which was improved in session III.

**Table-2 The mean scores of indicators for all the selected subjects**

S.No	Indicators	Mean Scores (n=30)				"t" Value
		Session-I	Session-II	Session-III	Difference between Session I & III	
1	Building rapport	1.83±0.38	3±0	4±0	2.17	31.30
2	Eye-contact/	1.77±0.43	2.63±0.49	3.83±0.38	2.06	17.69
3	tone of voice	1.13±0.35	2.63±0.49	3.83±0.38	2.7	31.72
4	Body Language	1.83±0.38	2.13±0.35	3.87±0.35	2.04	22.722
5	Expression of empathy and compassion for patient	1.70±0.47	2.20±0.41	3.70±0.47	2	17.029
6	Listening Skills/Scope of Questions asked	2.47±0.86	2.97±0.41	3.83±0.38	1.36	8.411
7	Nutrition Knowledge	2.47±0.86	2.70±0.53	3.93±0.25	1.46	8.93
8	Personal and Religious based Preferences	1.77±0.43	2.23±0.43	3.70±0.47	1.93	18.15

9	Prioritizing important information	1±0	2.27±0.45	3.93±0.25	2.93	63.32
10	Preparation	1.87±0.35	2.93±0.25	4±0	2.13	33.79

Significant at p<0.5

In this study even though students received patients details that explained patients medical status, during the session the students did not address these cultural/religious preferences. Students also struggled with their expression of empathy to certain patients particularly those facing alcoholism and smoking addictive behaviors. Only six students approached patient with their empathetic behavior, while the remaining students developed a more aggressive tone and acted in a negative approach when counseling patients with addictive behaviors

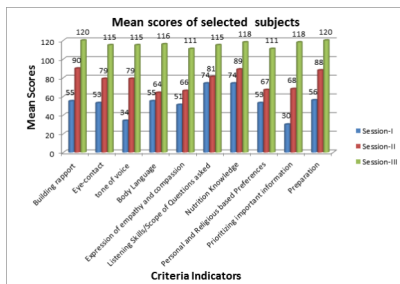


Figure-1 Mean scores of selected subjects

**Conclusion**

Dietitians need to communicate both verbally and non-verbally for clients to change their dietary behaviors. Educators can teach dietetic students these communication skills via an active learning approach, specifically through role-playing. The present study indicates that the addition of role-playing in counseling sessions improved students counseling and communication skills. Role-playing is a form of active learning recognized as a better method for teaching in the 21st century compared with lecture-based learning.

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