

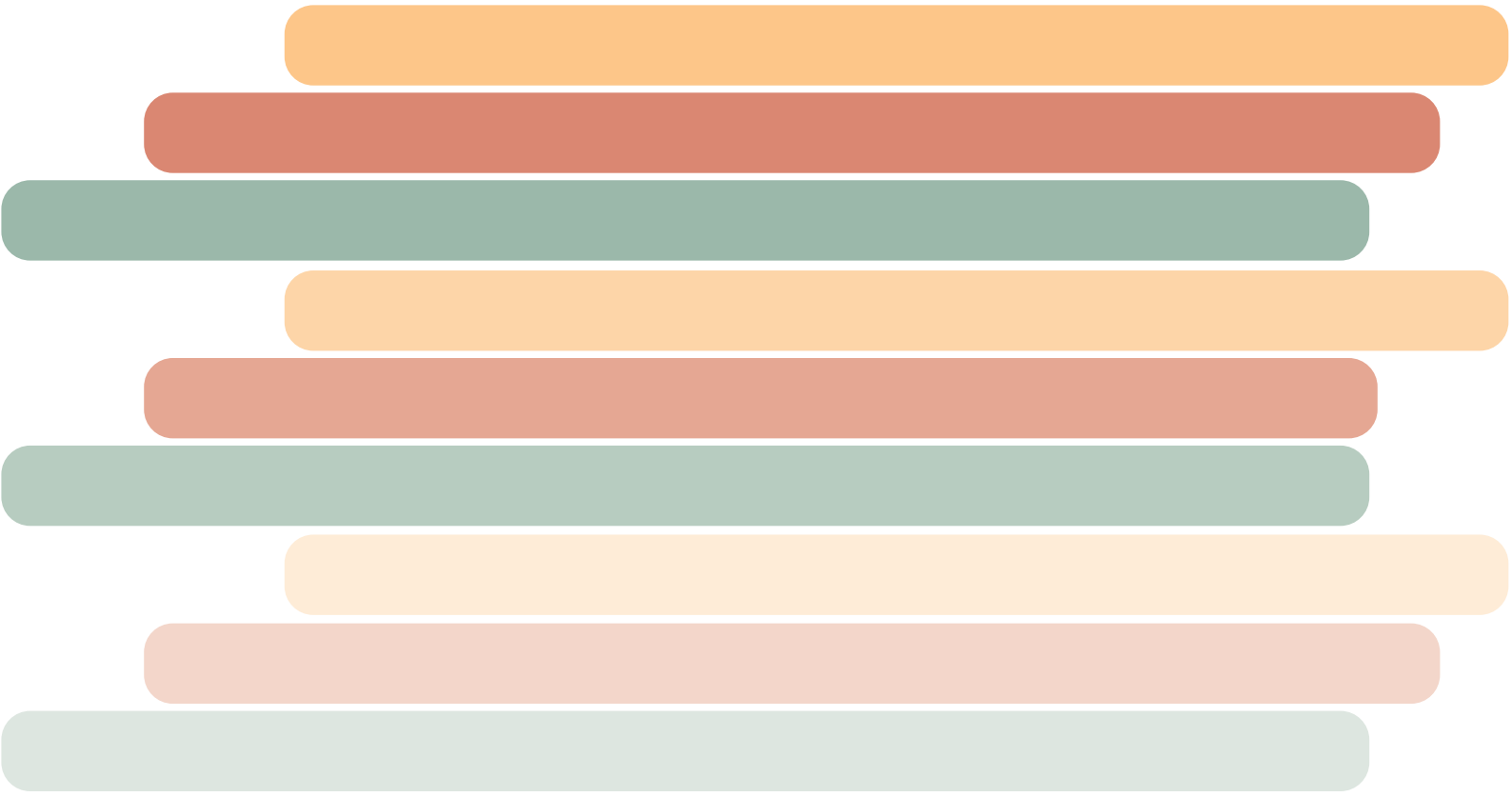
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Società Italiana di Ricerca Didattica





Società Italiana di Ricerca Didattica

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Le aree di ricerca riguardano: lo sviluppo dei curricoli, la formazione degli insegnanti, l'istruzione scolastica, universitaria e professionale, l'organizzazione e progettazione didattica, le tecnologie educative e l'e-learning, le didattiche disciplinari, la didattica per l'educazione inclusiva, le metodologie per la formazione continua, la docimologia, la valutazione e la certificazione delle competenze, la valutazione dei processi formativi, la valutazione e qualità dei sistemi formativi.

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Italian nutritionists soft skills university training

La formazione universitaria nelle soft skills dei nutrizionisti italiani

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Pensieri Claudio edited the design of the article and paragraphs: Abstract, Background, Methods, Discussion & Conclusion.
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Abstract

A good understanding and mastery of the science of nutrition and diet is a fundamental component required of nutrition professionals.

However, this knowledge alone will not enable effective practice unless it is combined with highly developed communication skills. In order to achieve dietary outcomes and nutrition education, it is critical not only the type of information that is provided, but also the manner in which it is disseminated.

Using effective communication and adequately conveying messages is the key component to successful nutritional interventions.

In this study, we wanted to investigate how many Italian universities (including telematics) had the LM-61 degree program active (Food Science and Nutrition).

Then, we analyzed their educational offerings in search of structured courses in Interpersonal Communication (soft-skills) and we identified only 6 active courses in 5 faculties.

After that, we interviewed health care professionals to analyze their perceptions of the problem related to soft skills in the workplace and their undergraduate education on these issues.

Keywords: High Education; University; Soft Skills; Communication; Patient Education.

Riassunto

La buona comprensione e padronanza della scienza della nutrizione e dell'alimentazione è una componente fondamentale richiesta ai professionisti della nutrizione; tuttavia, questa conoscenza da sola non permetterà di svolgere una pratica efficace a meno che non sia combinata con abilità comunicative altamente sviluppate. Per il raggiungimento dei risultati dietetici e dell'educazione alimentare è infatti fondamentale non solo la tipologia di informazioni che vengono fornite, ma anche la modalità con cui queste vengono diffuse.

Utilizzare una comunicazione efficace e trasmettere adeguatamente i messaggi ai propri pazienti, è la componente fondamentale per il successo degli interventi nutrizionali.

In questo studio abbiamo voluto investigare in quante Università Italiane (anche telematiche) è attivo il corso di Laurea LM-61 (Scienze dell'Alimentazione e Nutrizione).

In seguito abbiamo analizzato la loro offerta formativa alla ricerca di corsi strutturati di Comunicazione Interpersonale (soft-skills) ed abbiamo individuato solo 6 corsi attivi in 5 facoltà.

In seguito abbiamo intervistato dei professionisti sanitari per analizzare la loro percezione del problema relativo alle soft skills in ambito lavorativo ed alla loro formazione universitaria su tali tematiche.

Parole chiave: High Education; Università; Soft Skills; Comunicazione; Educazione Del Paziente

1. Introduction

Italian's Nutrition professionals (nutritional biologists, dietitian doctors or dieticians), with their work, are committed to help patients on a daily basis so that they will be able to positively modify their food choices and behaviors to improve their state of health.

In Italy, there are 3 professionals who can develop personalized diets:

- The dietitian: three-year degree in dietetics (prescription required).
- The nutritionist biologist: master's degree in food science and human nutrition + registration with the National Order of Biologists, in section A.
- The dietician: master's degree in medicine and surgery + specialization in food science (4 years).

These health professionals have continuous and repeated interactions with their patients and, often, also with their families. It is essential for healthcare professionals to develop so-called transversal skills or soft skills.

There are various ways of naming soft skills, also called social skills, transversal competences, social competences, generic competences, even basic and life skills. Some international research projects or institutions prefer the term "21st century skills", whereas the Organisation for Economic Co-operation and Development (OECD, 2003) uses the terms "key competencies" and, more recently, "skills for social progress" (OECD, 2015). In the United Kingdom, the terms life skills, core skills and key skills are frequently used in addition, or in preference to, the term soft skills.

In Australia and New Zealand, expressions such as "employability skills" or "generic skills" are used. In the United States they prefer to talk about "basic skills" and "necessary skills" (Cornalli, 2018). In Europe different countries use different denominations, as illustrated in Fig. 1.

| Countries | Denominations |
|-----------|--|
| Austria | <i>Schlüsselkompetenzen</i> (key competencies) |
| Belgium | Belgium fr.: <i>compétences transversales</i> . (transversal competencies) Belgium nl.: <i>Sleutelcompetenties</i> (key competencies) |
| Denmark | <i>Nøglekompetence</i> (key competencies) |
| England | key skills (England, Ireland) core skills (Scotland) life skills, key transferable skills, cross competencies |
| France | <i>compétences transversales</i> |
| Germany | <i>Schlüsselkompetenzen</i> (key competencies), <i>übergreifende Kompetenzen</i> (general competencies) |
| Italy | Competenze trasversali |
| Portugal | <i>competências essenciais</i> (essential competencies), <i>competências transversais ou genéricas</i> (transversal or generic competencies) |
| Spain | <i>competencias genéricas</i> |

Figure 1: Soft Skills definition's

Soft skills, as reported in "Transferability of skills across economic sectors" (EU, 2011), include interpersonal skills, organizational skills, leadership skills and communication skills.

A systematic framework on soft skills in order to be able to exercise good "governance of action" was developed by Ciappei and Cinque (2014).

This framework is based on an interpretation of the two dimensions of human action highlighted by Aristotle: *praxis* (ethical-social dimension) and *poiesis* (technical-practical or productive dimension).

From this framing, Pellerey (2017) lists these definitions:

- Political soft skills: communication, negotiation, conflict management, relationship network management, user/customer orientation, leadership.
- Ethical soft skills: commitment, continuous improvement, stress tolerance, ability to adapt to different cultural contexts, work-life balance, personal/family life balance, ability to develop others.
- Strategic soft skills: self-awareness, personal growth, creativity and innovation, results orientation, adaptability to change, entrepreneurial vision.
- Organizational soft skills: self-management, team work, analytical skills, managerial skills, ability to delegate, scheduling and planning.

In the nutrition professionals' case, those cognitive, personal, interpersonal and organizational skills, if acquired, make a professional highly qualified.

It is necessary, for these professionals, to make use of their "practical wisdom" namely the action inscribed in a coordinated way in the path of human maturation.

Human maturation is the identification of a series of "components" that allow a goal (in this case of weight-shape) to be achieved in the right way, with the appropriate means, at the appropriate time, through an objectively well-done action (La Marca, 2009).

Especially, good communication skills acquisition's is crucial for those who work in the field of dietetics and nutrition; this is also confirmed by the fact that interpersonal communication has been identified by the Academy of Nutrition and Dietetics (Bruening, 2022) as one of the distinguishing characteristics of professionalism in dietetic practice.

Good understanding and mastery of the science of nutrition and dietetics is a fundamental component required of nutrition professionals; however, alone, this knowledge does not enable effective practice unless it is combined with highly developed communication skills.

The achievement of dietary results is closely related to 2 crucial aspects:

- 1) The type of information that is provided,
- 2) The manner in which it is disseminated.

Using effective communication, adequately conveying messages to one's patients, is therefore a key component to the success of nutritional interventions.

It is important that the nutrition professional play the role of educator and counselor.

He should be a competent communicator; he should be able to achieve the desired results through communication that is considered appropriate for a given context.

The correlation between empathy of health care providers and improved patient adherence, satisfaction, and treatment outcomes is well-established (Ratka, 2018).

The goals of nutrition education or (as defined by FAO and WHO¹) the informational and educational process by which the general improvement of the nutritional status of individuals is pursued, can be fulfilled through effective communication and:

- Promotion of appropriate eating habits
- Elimination of improper eating behaviors
- Utilization of more hygienic food handling
- Efficient use of food resources.

In order to be effective during a communication, we must pay attention to what is expressed verbally, but also we must be aware of all those nonverbal signals such as eye movement, posture, gestures, tone of voice, and facial expressions (Pensieri, 2009) that contribute to well encode the message.

Furthermore, for the latter to be coherent and understandable, for the communicator it is important to anticipate how the recipients might interpret it.

1 <https://www.fao.org/3/i3234e/i3234e.pdf>

Acquiring good communication skills allows one to improve the relationship with the patient.

From the studies analyzed in the Rusali et al. (2020) review's we can see that most of the health professionals interviewed recognize, almost unanimously, the extreme importance of good communication skills; dietitians, in particular, emphasized how crucial this is for positively modifying patients' eating behavior.

The Curriculum Framework for the Pre-Registration Education and Training of Dietitians (British Dietetic Association, 2020) recognizes communication as a key subject in the training of those working in dietetics and nutrition.

The Academy of Nutrition and Dietetics identifies interpersonal communication as one of the defining characteristics of professionalism in dietetic practice; and the U.K. Health and Care Professions Council advocates that nutrition professionals should "be able to communicate."

These are just some of the most important statements enhancing the role of communication in health care and especially in the dietary-nutritional field.

The acquisition of soft skills, and especially communication skills, can take place during undergraduate education, with dedicated courses, or through post-graduate courses, specific master's degrees, or refresher courses; however, soft skills can also be greatly refined through practice and experience in the field, speaking directly with patients.

Adequate communication skills and continuing education are essential aspects for successful dietetic practice to treat patients effectively and promote behavioral change.

How the nutrition professional communicates is crucial to the outcome (Gable, 2016).

Studies show that the way nutrition professionals approach patients, the quality of their interactions and their competence in using communication skills contribute greatly to build a good relationship; this, in turn, influences satisfaction, motivation and achievement of agreed dietary goals. This evidence supports the previous assertion that, the way nutrition professionals communicate with patients, is crucial to the achievement of outcome (Gable, 2016).

Otherwise, the deprivation of education (in this case patient's clinical-education) represents an incalculable burden on the social, economic, intellectual and psychological well-being of the individual and constitutes a serious obstacle to personal fulfillment (Nussbaum, 2011, p.147).

This kind of training is also important because can boost the reflexivity and reflective thinking of students or professionals.

Dewey's (1933) "reflective thinking" education is very useful because, the effects and right uses of reflexivity are tracked at both individual and systemic level, fostering learning, change, innovation and creativity.

2. Materials and Methods

The available scientific literature covers the category of dietitians and dieticians, including international guidelines.

Studies on nutritional biologists are lacking in the literature, totally excluding this category of professionals from any type of investigation; it is rare to find studies investigating the importance that communication plays in their work practice.

For this kind of biologists, however, soft skills are very important since they are professionals who, similarly to dietitians, take care of their patients by following them continuously and for a long time.

In addition, there are few studies investigating the contribution that undergraduate training of nutritional biologists has had in the acquisition of soft skills and, specifically, communication skills.

To fill this gap, we decided to study the educational offerings of Italian's University degree programs in search of teachings related to interpersonal communication.

In March 2023, the list of Italian universities that offered Master's Degree Courses in Food Science and Human Nutrition (LM-61) was retrieved from the website of the National College of Presidents of

Master's Degree Courses in Human Nutrition², the association of all the presidents of the different Master's Degree Courses (degree class LM-61) present in Italian universities.

Once we obtained this list, by accessing the websites of the various universities, we look through the curriculum of each degree program to see whether or not there were courses that focused on, or at least included, the teaching of communication skills and, specifically, whether there were courses that related communication skills to build a good relationship between nutritionist and patient.

Then, we submitted a questionnaire directly to professional workers to find out their opinion on the undergraduate education they received and what they would need to supplement any training gaps.

3. Results

Regarding the data related to: "Which Italian universities offer Master's Degree in Food Science and Human Nutrition?" we found that there were 25 universities in Italy, which included the Master's Degree in Food Science (LM-61) in their educational offerings (Tab. 1).

| Università che offrono il corso LM-61: Laurea Magistrale in Scienze dell'Alimentazione |
|---|
| Corso di Laurea Magistrale in Scienze della Nutrizione per la Salute Umana, Università degli Studi di Bari "Aldo Moro" |
| Corso di Laurea Magistrale in Nutrizione Umana, Benessere e Salute, Università di Bologna "Alma Studiorum" |
| Corso di Laurea Magistrale in Scienze degli Alimenti e della Nutrizione, Università degli studi di Cagliari |
| Corso di Laurea Magistrale in Scienze della Nutrizione, Università degli studi della Calabria |
| Corso di Laurea Magistrale in Scienze degli Alimenti e della Nutrizione Umana, Università degli studi della Campania "Luigi Vanvitelli" |
| Corso di Laurea Magistrale in Scienze della Nutrizione Umana, Università degli studi di Catania |
| Corso di Laurea Magistrale in Scienze dell'Alimentazione e Salute, Università degli studi di Chieti-Pescara "G. D'Annunzio" |
| Corso di Laurea Magistrale in Scienze dell'Alimentazione, Università degli studi di Firenze |
| Corso di Laurea Magistrale in Scienze biotecnologiche degli alimenti e della nutrizione Umana, Università degli studi di Foggia |
| Corso di Laurea Magistrale in Scienze della Nutrizione e dell'Alimentazione, Università Politecnica delle Marche |
| Corso di Laurea Magistrale in Scienze dell'Alimentazione e Nutrizione Umana, Università degli Studi di Messina |
| Corso di Laurea Magistrale in Alimentazione e Nutrizione Umana, Università degli studi di Milano |
| Corso di Laurea Magistrale in Scienze della Nutrizione Umana, Università degli studi di Napoli "Federico II" |
| Corso di Laurea Magistrale in Food Health (lingua inglese) – Scienze della nutrizione umana, Università degli studi di Padova |
| Corso di Laurea Magistrale in Scienze dell'alimentazione e Nutrizione Umana, Università degli Studi di Palermo |
| Corso di Laurea Magistrale in Scienze della nutrizione Umana, Università di Parma |
| Corso di Laurea in Scienze dell'Alimentazione e della Nutrizione Umana, Università degli studi di Perugia |
| Corso di Laurea Magistrale in Scienze dell'Alimentazione e della Nutrizione Umana, Università degli studi di Pisa |
| Corso di Laurea Magistrale in Scienze dell'alimentazione e nutrizione umana, Università degli Studi di Roma "Tor Vergata" |
| Corso di Laurea Magistrale in Scienze dell'Alimentazione e Nutrizione Umana, Università "Campus Bio-Medico" di Roma |
| Corso di Laurea Magistrale in Scienze della Nutrizione Umana, Unicamillus – International Medical University |
| Corso di Laurea Magistrale in Scienze dell'alimentazione, salute e benessere dell'uomo, Università degli studi di Sassari |
| Corso di Laurea Magistrale in Scienze della Nutrizione Umana, Università Telematica San Raffaele, Roma |
| Corso di Laurea Magistrale in Scienze degli alimenti e della nutrizione umana, Università degli Studi di Torino |
| Corso di Laurea Magistrale in Scienze dell'alimentazione della nutrizione umana, Università degli Studi della Toscana. |

Table 1: Italian universities that include the Master's Degree in Food Science (LM-61) in their educational offerings

Once we ascertained the number of universities offering this kind of degree program, we investigated the educational content offered to students.

After our analysis of the syllabus of each degree program we found that, among these universities, only 5 of them included, in their curriculum, a course in which the topic of interpersonal communication was covered (Tab. 2).

2 <https://www.conp-lm61.it/i-corsi-in-italia/> (ultimo accesso 27/03/2023).

- Corso di Laurea Magistrale in Scienze biotecnologiche degli alimenti e della nutrizione Umana, Università degli studi di Foggia: come corsi a scelta offre “La comunicazione ed il public speaking” e “Le soft skills”.
- Corso di Laurea Magistrale in Food Health (lingua inglese) – Scienze della nutrizione umana, Università degli studi di Padova: offre un corso che si intitola “Communication skills” il cui scopo è quello di permettere allo studente di essere consapevole della sua comunicazione verbale e non verbale, e di acquisire delle abilità retoriche per comunicare in pubblico.
- Corso di Laurea Magistrale in Scienze dell’Alimentazione e Nutrizione Umana, Università “Campus Bio-Medico” di Roma: offre un corso a scelta di counseling nutrizionale che si pone l’obiettivo di insegnare allo studente come comunicare in maniera adeguata con i pazienti per saper gestire tutte le situazioni che si potranno presentare nella futura attività lavorativa. Mentre nella laurea magistrale propone anche un corso di “Design thinking, comunicazione ed etica in nutrizione”.
- Corso di Laurea Magistrale in Scienze della Nutrizione Umana, Unicamillus – International Medical University: offre un corso intitolato “Altre conoscenze utili per l’inserimento nel mondo del lavoro” che nel suo programma prevede l’apprendimento di come debba essere accolto e presentato il paziente in prima visita, quale sia il linguaggio da utilizzare e come creare empatia con esso.
- Corso di Laurea Magistrale in Scienze degli alimenti e della nutrizione umana, Università degli Studi di Torino: offre un corso intitolato “Aspetti psicologici e psicopatologici dell’alimentazione” il cui obiettivo è quello di approfondire le caratteristiche della relazione tra il professionista e il paziente nelle dimensioni di comunicazione verbale e non verbale, ruolo delle emozioni, consapevolezza degli stati somatici ed emotivi del paziente e dello specialista, riconoscimento delle difficoltà psicologiche legate alla tematica alimentare.

Table 2: Italian universities that include a course on Interpersonal Communication

In June 2023, we submitted a questionnaire (we created it with a free internet-based platform) to 41 professionals.

We excluded from our data analysis all professionals with degrees different from LM-61.

The questionnaire we submitted consisted of six sections:

- 23 questions (section 1) aimed at collecting respondents’ biographical data and information regarding their undergraduate education;
- 21 questions (section 2 and 3) that investigated the importance of communication competence;
- 6 questions (section 4) that investigated the confidence of respondent about various aspects;
- 8 questions (section 5) that investigated the respondent’s opinion regarding the need to include the teaching of communication skills in the university curriculum;
- a final optional section consisting of 6 questions that aimed at investigating how nutritionists handles, on a communicative level, the visit with their patient, how they approach and what communicative stratagems they use to establish a trusting relationship with their interlocutors.

In this article we will not consider all the items in the questionnaire (all the 6 sections), but only those related to “undergraduate” and “postgraduate” education.

| | |
|---|---|
| In your opinion, how much important is to develop adequate communication skills to build and maintain a good relationship with the patient? | 69% Extremely important 31% Very important |
| I think it is really helpful to learn communication skills during the nutrition science degree program | 91% Agree (47% Agree + 44% Extremely agree) 9% Not agree |
| During your Master’s degree, did you take an undergraduate course focusing on communication, on what it is and what it means to communicate properly? | 34% Yes 66% No |
| In your opinion, how important is it to develop adequate communication skills to improve patient clinical outcomes? | 87% Relevant 9% Moderate |
| Would you recommend to the university where you graduated to incorporate, or improve if it is already present, the teaching of interpersonal communication between nutritionist and patient? | 97% Yes 3% No |
| Regarding interpersonal communication between nutritionist and patient, in your opinion, do you think that new graduates in nutrition are adequately trained? | 78% No 16% Yes 6% Don’t know |
| In your opinion, for new graduates in nutrition science, is it important that Universities train them with appropriate courses about how nutritionists can communicate effectively with patients? | 94% Yes 6% No |
| In your opinion, is it more useful to take a course on communication within the undergraduate or postgraduate curriculum? | 41% Undergraduate course 9% Post-graduate 50% Both |
| I cannot waste time taking classes on communication skills... | 81% Disagree 19% Neutral |

Table 3: Partial responses of the professionals questionnaire

A noteworthy finding extrapolated from the survey result is that 66 percent of nutritionists say they have been faced with a patient who has expressed, either implicitly or explicitly, that, he or she, has suffered emotional harm as a result of miscommunication by a nutritionist to whom they previously approached (Fig. 2).

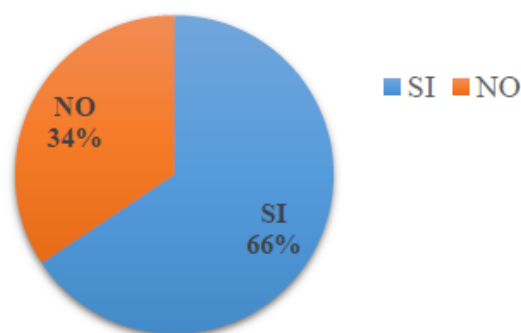


Figure 2: Percentage of patients who claimed to have been harmed by miscommunication

4. Discussion

This study has some very important limitations.

The first concerns the data collected by administering the questionnaire. In fact, the data collected from the pilot questionnaire are not representative of the sample of Italian nutritionists; it should be extended to (at least) those who are registered in the Register of Biologist Nutritionists and who have therefore passed the Italian State examination.

In addition, if we want to study the importance of university training in soft skills and in particular on human communication, it should also be extended to dietitian graduates and physician-dietitians.

While for the research of universities (also considering Telematic Universities), it suffers from the fact that some elective teaching courses are not reported in the online programs of universities.

In fact, sometimes, universities conduct workshops or seminars on interpersonal communication, but these are only communicated to internal students and not on their institutional websites.

But this is also an important finding, namely that they are still “supplementary” courses and not “structured” in the annual educational plan.

From the data collected, there is a strong disconnection between university training offerings and the soft skills professionals consider necessary in the practice of their work.

5. Conclusion

In the world the importance of communication skills is widely recognized. Communication Skills are so considered that a major international accreditation organization such as the Joint Commission International (JCI is dedicated to improve quality and safety in health care services), reserves several chapters and dedicates dozens of standards exclusively to communication (Joint Commission International, 2020).

Benbassat (1998) states: “The ability to communicate health-related information and to determine the patients’ desire to participate in healthcare decisions should be viewed as a basic clinical skill”.

In Italy, communication competence, declined especially to the dietetic-nutritional field, is still little considered and consequently studied.

If we want to transform Italian Universities in “Learning Organization” (Pensieri, 2019) as place where “people are continually learning how to learn together” (Senge, 1990) we need to improve University Soft Skills training.

By increasing the sample of respondents and improving the questions in the questionnaire, this study could be an excellent basis for defining possible changes or improving the services already offered in order to better prepare future nutrition professionals for the challenges they will face and to ensure that the percentage of patients who say they have suffered emotional harm due to miscommunication by the profes-

sional will decrease.

Conflict of interests

The authors declare no conflict of interest.

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