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**MORAL ASPECT OF AUTHENTIC LEADERSHIP IN DIETETICS
STUDENTS**

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Abstract

Little has been reported regarding the level of students' authentic leadership (AL) in a medical and health sciences universities. We still do not know much about AL skills in dietetics students (DS), especially about moral aspect. The aim of this study was to look for potential determinants of moral aspect of AL skills in DS. There were analysed: transparency, balanced processing, perfectionism and general self-efficacy. The general characteristics of DS in the context of AL skills was also made. The study was conducted with 326 DS. Data was collected from April 2018 to October 2018 with the use of the paper-and-pencil interviewing (PAPI) method in Medical University of Warsaw (MUW) (convenience sampling). Following research tools were used: Authentic Leadership Questionnaire, Almost Perfect Scale-Revised (APS-R), General Self-Efficacy Scale. The STATISTICA program, version 13.1 (StatSoft Inc.) was used. In DS, moral aspect of the AL skills positively correlated with transparency ($r=0.52$, $p<0.05$), balanced processing ($r=0.47$, $p<0.05$) and two dimensions of perfectionism – standards ($r=0.26$, $p<0.05$) and order ($r=0.11$, $p<0.05$). The relationship between self-efficacy and moral aspect of AL skills was also noted ($r=0.23$, $p<0.05$). A special curriculum must be developed for strengthening the leadership skill in context of dieticians clinical practice. In the development of AL skills, special attention should be paid to strengthening the level of adaptive perfectionism and self-efficacy.

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Keywords: Authentic leadership, self-efficacy, perfectionism, dietetics.



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1. Introduction

In health science, the theory of authentic leadership (AL) is becoming more and more popular (Al-Moamary, Al-Kadri, & Tamim, 2016). Studies in positive psychology (Seligman, 2004) and social psychology (Kernis, 2003; Ryan & Deci, 2003) contributed to this. In a psychological context, authenticity can be defined as “owning one’s personal experiences, be they thoughts, emotions, needs, preferences, or beliefs, processes captured by the injunction to know oneself” and behaving in accordance with the true self” (Harter, 2002, p. 382).

In the literature, AL has been described in many ways, but the most-known theory of AL was proposed by Walumbwa, Avolio, Gardner, Wernsing, and Peterson in 2008. Walumbwa et al. (2008) define authentic leadership as a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development. According to these researchers (Walumbwa et al., 2008), AL skills are composed of four dimensions. These are: self-awareness, relational transparency, balanced processing and internalized moral perspective. Self-awareness refers to showing an understanding of one’s strengths and weaknesses and how others see him or her and how the leader impacts others. It is also associated with the multifaceted nature of the self (Kernis, 2003). Relational transparency is related to presenting one’s authentic self to others. It is also a level of leader’s openness with others that provides them with an opportunity to be forthcoming with their ideas, challenges and opinions (Kernis, 2003). Balanced processing refers to leaders who solicit sufficient opinions and viewpoints prior to making important decisions (Gardner, Avolio, & Walumbwa, 2005). Internalized moral perspective defines what degree does the leader set a high standard for moral and ethical conduct. It also refers to an internalized and integrated form of self-regulation (Ryan & Deci, 2003).

In context of AL, a positive moral perspective, which is characterized by high ethical standards, can have a crucial role. This perspective is like a guide decision making and behaviour (Avolio & Gardner, 2005; Gardner et al., 2005; Walumbwa et al., 2008). Moreover, it is emphasized that an internalized moral perspective has the central role in development of AL (Eigel & Kuhnert, 2005). Other authors emphasized that an advanced level of moral development is a requirement for the achievement of leader authenticity (Eigel & Kuhnert, 2005; Walumbwa et al., 2008). Leaders should focus attention on their moral development (Avolio & Gardner, 2005).

A positive moral perspective is especially important in medicine (Wandrowski, Schuster, Strube, & Steger, 2012) and in nursing (Shahriari, Mohammadi, Abbaszadeh, & Bahrami, 2013). It is emphasized that a moral attitude determines the correct relationship between medical staff and patient. In this context, empathy, which is very closely to the moral attitude, is of particular importance. Empathy in the clinical context is defined as the adequate understanding of the inner processes of the patient concerning his health-related problems. It is believed that moral positions, and knowledge of medical ethics are of essential importance for shared decision-making processes (Wandrowski et al., 2012).

2. Problem Statement

Dietician is a qualified health care specialist who has specialist knowledge in the field of nutrition for a healthy person and ill patients. This an adequate specialist can also choose diet and prepare prevention of diet-related diseases. He / she is also responsible for dietary treatment in various disease states. Dietitian can work in medical team (e.g. In health care institutions - hospitals, clinics), as well as have individual practice (e.g. In private offices). The specificity of this profession requires constant training, developing skills and raising qualifications. In achieving professional success, the following features are necessary: compulsiveness, responsibility, independence in action, the ability to make contact with other people, sensitivity and empathy (Marcason, 2015).

In the literature, there are no studies which analyze a moral aspect of dietician students (DS) in their clinical work, especially in context of patient-dietitian relationship. Similarly, it can be observed the lack of papers related to the issue of AL, which is mainly analyzed in doctors (Montgomery, 2016) and nurses (Lee, Chiang, & Kuo, 2018). We still do not know much about AL skills in DS, especially moral aspect. However, the American Dietetic Assosiation (ADA) highlights the need to shape and strengthen leadership skills among dietitians. ADA believes that leadership skills can increase the effectiveness of dieticians' clinical work with patients. This is particularly important in the context of current social and economic challenges (e.g. aging population and a limited number of dietitians in medical centers) (Gregoire & Arendt 2004; McCollum, 2014).

3. Research Questions

The following research questions have been formulated in relation to the problem statement:

- 1) What is the characteristics of DS in the context of authentic leadership skills, especially moral aspect?
- 2) What factors determine AL skills in DS, especially moral aspect?

4. Purpose of the Study

The aim of the study was to look for potential determinants of moral aspect of AL skills in DS. There were analysed following determinants: transparency, balanced processing, perfectionism and general self-efficacy. The general characteristics of DS in the context of AL skills was also made.

5. Research Methods

5.1. Material

The study was conducted with 326 dietetics students. Inclusion criteria included: 1) being a DS at the Medical University of Warsaw (MUW); 2) informed consent for Anonymous Survey. Exclusion criteria: 1) not being a DS at the Medical University of Warsaw; 2) lack of informed consent for Anonymous Survey. At the MUW, there are two types of dietetics studies: first-cycle studies (bachelor studies) which has 6 semesters, and second-cycle studies (Master's studies) which has 4 semesters. In this study, students of bachelor and master degree were involved. The convenience sampling was used.

Convenience sampling (also known as availability sampling) is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in study (Saunders, Lewis, & Thornhill, 2009).

5.2. Methods

The cross-sectional study was conducted. Data was collected from April 2018 to October 2018 with the use of the paper-and-pencil interviewing (PAPI) method in Medical University of Warsaw (MUW). PAPI method still is used in instances where data are being gathered from a relatively small sample.

5.3. Questionnaires

Following research tools were used: Authentic Leadership Questionnaire, Almost Perfect Scale-Revised (APS-R), and General Self-Efficacy Scale (GSES).

Authentic Leadership Questionnaire (ALQ) was developed by Avolio, Gardner & Walumbwa. ALQ is designed to measure the components that comprise Authentic Leadership, and has four scales: Self Awareness, Transparency, Ethical/Moral, Balanced Processing. The permission to use the Polish version of ALQ in this research was received. The ALQ scale consists of 16 items. Respondent tells every question using the 5-point scale (Not at all - Once in a while - Sometimes - Fairly often - Frequently, if not always) (Gardner et al., 2005)

Almost Perfect Scale-Revised (APS-R) was developed by Slaney, Rice, Mobley, Trippi, and Ashby, in 2001. APS-R consists of 23 items, which contains three variables: High Standards, Order, and Discrepancy. Respondent tells every question using the 7-point scale (Strongly Disagree, Disagree, Slightly disagree, Neutral, Agree Slightly, Agree, Strongly Agree). The designers of APS-R (Slaney et al., 2001) consider Standards and Discrepancy as defining elements of perfectionism. High scores in Standards mean high expectations being set with a high need for excellence. This defines perfectionists, whether they are 'maladaptive' or 'adaptive'. A high score on the Discrepancy Scale combined with a high score in Standards is what indicates a maladaptive type of perfectionism. Maladaptive basically means less flexible to the point of frustration and inability to reach goals or just the continual 'not good enough' (Slaney et al., 2001).

General Self-Efficacy Scale (GSES) was developed by Schwarzer and Jerusalem in 1995. GSES is a self-report measure of self-efficacy and consists of 10 items. Respondent tells every question using the 4-point scale (Not at all true, Hardly true, Moderately true, Exactly true). The total score is calculated by finding the sum of the all items. For the GSES, the total score ranges between 10 and 40, with a higher score indicating more self-efficacy. Cronbach's alphas for GSES is between .76 and .90. GSES is correlated to emotion, optimism, work satisfaction. Negative coefficients were found for depression, stress, health complaints, burnout, and anxiety (Schwarzer & Jerusalem, 2010). In our study, polish version of GSES was used (Juczyński, 1999).

5.4. Statistics

The STATISTICA program, version 13.1 (StatSoft Inc.) was used for all calculations. Correlation analyzes were made using Spearman's rank correlation coefficient (Spearman's rho). Spearman's rho is the nonparametric version of the Pearson product-moment correlation.

6. Findings

6.1. Basic characteristics of respondents

Table 01 presents the characteristics of DS. Women dominated in this group. The present study was carried out in bachelor (n = 181, 56.56%) and master (n = 139, 43.44%) DS. In academic year 2017/2018, there were 286 DS at bachelor level, and 188 students at masters level. Therefore, the survey rate for bachelor students was 63.29%, and for master - 73.94%. In the case of 18 DS, a lack of data was reported. The average age of students was 24.17 years (SD = 3.822).

Table 01. Basic characteristics of DS (n=320)

Demographic variable		n	%
Sex	Women	300	93.75
	Men	20	6.25
Place of residence	Village	42	13.13
	Small town	40	12.50
	Medium town	43	13.44
	Large town	10	3.13
	Very large town	185	57.80
A year of study	I year (Bachelor)	66	20.63
	II year (Bachelor)	64	20.00
	III year (Bachelor)	51	15.93
	I year (Master)	78	24.38
	II year (Master)	61	19.06

6.2. Perfectionism of dietetics' students

In the case of the APS-R scale, the characteristics of persons with high scores on all subscales were included. For this reason, DS have been characterized in terms of high scores on the all subscales of APS-R, which also indicate a high level of perfectionism. Table 02 presents the characteristics of DS in case of perfectionism. According to classification, which was proposed by Rice and Ashby (2007), respondents who got 42 and above in Standards are a perfectionist. If respondent also has a Discrepancy score 42 and above, he/she is classified as a maladaptive perfectionist. Therefore, in the analyzed group, 96 dietetics' students (30.0%) reported maladaptive perfectionism.

Perfectionism is a very important personality trait that could affect the quality of clinical work (Seeliger & Harendza, 2017). In the case of dieticians, the preparation of a nutritional plans or nutritional therapy require very precise calculations related to the content of macronutrients (e.g. proteins, fats, carbohydrates) and micronutrients (e.g. vitamins and minerals). The accuracy of these calculations affect

the implementation of nutritional standards, which are recommended by Scientific Societies. This is of particular importance in clinical work with patients.

In the analyzed group, about 30% of DS were characterized by maladaptive perfectionism. This type of perfectionism can be a barrier in clinical work. This can lead to burnout and unrealistic goals for patients. The dietitian may think that the patient will follow all dietary recommendations, and treats possible failures as his own.

Table 02. Perfectionism of DS (n=326)

Variable	Min-Max	M	SD
Perfectionism – High Standards	7-49	39.93	6.423
High scores on this scale which diagnosed perfectionism were characterized of 147 students (45.10%)			
Perfectionism - Order	8-28	21.45	4.365
Perfectionism - Discrepancy	15-84	45.66	15.118
High scores on this scale which diagnosed maladaptive perfectionism were characterized of 208 students (63.80%)			

M - Mean, SD - standard deviation

6.3. Self-efficacy of DS

In table 03, there is characteristics of DS in case of self-efficacy. Complete data was obtained from 326 DS. Self-efficacy is defined as a person's belief that they can be successful when carrying out a particular task (Cambridge Advanced Learner's Dictionary & Thesaurus 2019). For this reason, self-efficacy also determines the efficiency of the dietitian's work. Preparing a nutritional plan for a patient requires not only proper dietary knowledge, but also adequate skills. Average level of self-efficacy in analysed DS group was lower than in in the normalization Polish trial (M = 27.32; SD = 5.31). Taking into account the current recommendation, the analyzed group of DS has been divided into low, medium and high level of self-efficacy. The analyzed group was dominated by students with medium self-efficacy (Table 03).

Table 03. Characteristic of DS in case of self-efficacy (n=326)

Psychological variable	Min-Max	M	SD
Self-Efficacy	4-40	29.76	4.427
The number of DS with different levels of self-efficacy:			
Low level	N= 12 (3.70%)		
Medium level	N= 153 (77.60%)		
High level	N= 61 (18.70%)		

M - Mean, SD - standard deviation

6.4. Authentic leadership (AL) skills in DS

In table 04, the characteristics of DS in the context of AL, especially the moral dimension, has been presented. In the literature, there is no research on the AL skills of DS. Therefore, it is difficult to compare obtained results with other DS or dietitians who have clinical practice. All group of students was divided into low, medium and high intensity of AL skills. It was made on the basis of the obtained mean (M) and standard deviation (SD). Detailed data is presented in the table 04.

Table 04. Authentic leadership (AL) skills in DS (n=325)

AL skills	Min-Max	M	SD
Transparency	9-25	18.55	2.837
Low level	N= 44 (13.50%)		
Medium level	N = 225 (69.00%)		
High level	N = 56 (17.20%)		
Moral	4-20	16.45	2.528
Low level	N = 36 (11.00%)		
Medium level	N = 211 (64.70%)		
High level	N=79 (24.30%)		
Balanced processing	5-17	11.76	2.099
Low level	N = 47 (14.40%)		
Medium level	N = 209 (64.10%)		
High level	N = 70 (21.50%)		

M - Mean, SD - standard deviation

In DS, moral aspect of the AL skills positively correlated with transparency ($\rho=0.52$, $p<0.05$), balanced processing ($\rho=0.47$, $p<0.05$) and two dimensions of perfectionism – standards ($\rho=0.26$, $p<0.05$) and order ($\rho=0.11$, $p<0.05$). The relationship between self-efficacy and moral aspect of AL skills was also noted ($\rho=0.23$, $p<0.05$).

The presented study is the first one that concern the AL skills of DS. The Academy of Nutrition and Dietetics draws attention to the important role of leadership skills in the dietician work, and defines leadership skills as “the ability to inspire and guide others toward building and achieving a shared vision.” (Gregoire & Arendt, 2004).

In literature, it is also stressed that the modern dietitian work requires leadership skills in clinical practice because those skills include the issues of cost and economics, evidence and confusion, and globalization (Boyce, 2014). Social and economic changes may affect the responsibilities of a dietitian in medical centers. Often, one dietitian must have a lot of patients, and conduct nutritional education or prepare nutritional plans for many patients in short time. The problem will be getting bigger because simulations suggest that the elderly population will increase (US Census Bureau 2019). Statistically, 75% of those individuals more than 65 years have at least one chronic illness (US Centers for Disease Control and Prevention 2019).

It should be emphasized that dietitians play an important role as members of the health care team. The health care team have their origins in behavioral medicine. In the health care team, the dietitian cooperates with other specialists, such as a doctor, nurse, physiotherapist and psychologist. In such teams, the dietitian should have appropriate communication skills, including leadership skills. Moreover, the evidence demonstrating nutrition’s role in healing, recovery, therapy, and readmissions is substantial. Developing leadership skills in DS can be crucial in this context. The dietitian as a professional staff has more influence on daily decision in clinic than administration. In this context, AL skills could be necessary. For this reason, developing of these skills should not relate only foodservice or management courses in curriculum (Patten & Sauer 2015). Some experts emphasize that developing of leadership skills should be based on the concept of Clinical Leadership or Leadership for Clinical Dietetics Practice. This concept has five components such as change, patients focus, relationship, technical and self-direct.

Change competent is related to behaviours in work place (e.g. analyse work environment, seek professional opportunities, improve work methods, represent and promote team). Patients-focus component is related to behaviors focused on improving patients safety, outcomes, and satisfaction. “Relationship” includes: acting as a mentor, engaging with a mentor, and sharing information among colleagues. “Self-Direct” is related to assess work progress, build cooperative relationship, plan work project, and manage work disruptions. “Technical” component includes key behaviours: engaging in developing clinical skills and knowledge, and apply current research to patient care. This concept of Clinical Leadership for Dietetics could be used to improve clinical practice. This is also a new trend in teaching modern dietetics at the University (Patten & Sauer 2019).

There is self-awareness is one of the important elements of AL. “Self-awareness means having a deep understanding of one’s emotions, strengths, weaknesses, needs and drives. People with strong self-awareness are neither overly critical nor unrealistically hopeful. Rather, they are honest – with themselves and with others” (Goleman 2004). In this context, self-awareness could be an important factor in the dietetics education. Especially that dietetics is a relatively new field, which is growing rapidly. Every year, many articles on nutrition in various age groups (children, adolescents and adults) have been published. Knowledge about nutrition is constantly changing. For this reason, obtaining a dietitian diploma from a university is insufficient. They have to undertake postgraduate training. Self-awareness allows DS to motivate themselves and choose those areas of dietetics which they are good. It could help to manage them clinical work with a patient in a hospital, and cooperate with local or global nutrition policy. As a result, they become more professional. It is worth noting that modern positive psychology emphasizes the need to reinforce the strengths of the individual (Seligman, 2004). This is particularly important in the context of evidence-based dietetics practice. The Academy of Nutrition and Dietetics defines evidence-based dietetics practice as “the process of asking questions, systematically finding research evidence, and assessing its validity, applicability and importance to food and nutrition practice decisions” (Academy of Nutrition and Dietetics, 2017). Scientists emphasizes that there are many dietary myths which are strengthened by the social environment, and have a negative impact on public health. Therefore, a dieticians have to use evidence-based dietetics practice in their clinical work. In addition, leadership skills can be helpful in this context.

6.5. Strengths and limitations

The present study is not without limitations. It should be emphasized that the cross-sectional study was conducted in DS from only one medical university. Therefore, the convenient sample which was used is not representative for all DS. Another important limitation of this study is the inclusion criteria which included only DS, but not active dietitians. Despite these limitations, the present study indicates the need for further research in the field of improving leadership skills of DS on representative groups and professionally active dieticians

7. Conclusion

DS could demonstrated AL in a variety of contexts. However, students' perceptions of AL could be related to clinical experience, classroom, and curriculum. Developing leadership skills should be an important part of dietetics course at the university. Therefore, educators should look for ways to integrate AL into the classroom. The participation of educators in the process of identifying current AL behaviors in students also seems important. Further study in this area is necessary.

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