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ABSTRACT

Introduction: Body weight increase is a contemporary trend that leads to health issues in different populations worldwide. Social stigma associated with this patient profile has negative repercussions, mainly in physician-patient interactions, which can result in weight gain and in increased mortality rates. Thus, managing this global disease requires better understanding of its multiple aspects, as recommended by international guidelines. **Objective:** To analyze some aspects of the therapeutic approach adopted by Endocrinology and Metabology-expert physicians to treat patients living with excess weight, based on information available in current guidelines. **Material and Methods:** Observational, cross-sectional study conducted with convenience sample deriving from the scientific update group "EndoNews", which is hosted in online platform. Data were collected through structured questionnaire, which was completed by 246 participants. Similar responses were grouped and subjected to Chi-square tests, at 5% Alpha. **Results:** 72% of physicians reported to have additional difficulties to treat this patient profile (PWD). PWD reports were mostly associated with work environments described as ill-equipped (p-value= 0.009), as well as with the Northern and Northeastern macroregions of practice (p-value= 0.012). In addition, PWD have shown weak belief in long-term therapeutic success (p-value= 0.004) and self-reported this approach as less encouraging (p-value= 0.001). **Conclusion:** It was possible drawing different profiles for physicians with (PWD) and without difficulty (PND) to treat patients living with excess weight. Factors, such as region of practice and ill-equipped infrastructure, were predictive of such a difficulty. Moreover, certain factors used to analyze participants' agreement with guidelines have shown that PWD diverged more often from the recommended information. Therefore, reflections about language, therapeutic strategies and infrastructural preparedness to serve these patients were suggested, aiming at subsequent changes in the way physicians approach and treat patients with excess weight.

Keywords: Obesity; Endocrinology; Social Stigma; Overweight.

RESUMO

Introdução: O aumento do peso corporal é uma tendência contemporânea, levando a problemas de saúde na população mundial. O estigma social associado ao perfil desse paciente repercute de forma negativa, principalmente nas interações médico-paciente, podendo resultar em ganho de peso e aumento da mortalidade. Assim, o manejo dessa doença mundial requer um melhor entendimento de seus múltiplos aspectos, conforme preconizado por diretrizes internacionais. **Objetivo:** Analisar aspectos da abordagem terapêutica adotada por médicos especialistas em Endocrinologia e Metabologia no tratamento de pacientes que vivem com excesso de peso, baseado nas diretrizes atuais. **Material e Métodos:** Estudo observacional, transversal, com amostra de conveniência proveniente do grupo de atualização científica "EndoNews", em plataforma *on-line*. Os dados foram coletados por meio de questionário estruturado respondido por 246 participantes. Respostas semelhantes foram agrupadas e submetidas a testes de qui-quadrado, a 5% de alfa. **Resultados:** 72% dos médicos relataram ter dificuldades adicionais para tratar este perfil de paciente (MCD). Os relatos dos MCD estiveram principalmente associados a ambientes de trabalho descritos como mal equipados (p-valor= 0,009) e com as macrorregiões de atuação Norte e Nordeste (p-valor= 0,012). Além disso, os MCD revelaram fraca crença no sucesso terapêutico em longo prazo (p-valor= 0,004) e abordagem autorreferida como menos encorajadora (p-valor= 0,001). **Conclusão:** Foi possível traçar diferentes perfis de médicos com (MCD) e sem dificuldade (MSD) para tratar pacientes que vivem com excesso de peso. Fatores como região de prática e infraestrutura mal equipada foram preditivos de tal dificuldade. Certos fatores usados para analisar a concordância dos participantes com as diretrizes mostraram que os MCD divergiram com mais frequência das informações recomendadas. Portanto, reflexões sobre a linguagem, estratégia terapêutica e preparo infraestrutural foram sugeridas, visando subsequente mudanças na abordagem e tratamento dos médicos em pacientes com excesso de peso.

Palavras-chave: Obesidade; Endocrinologia; Estigma Social.

INTRODUCTION

According to the World Health Organization (WHO), obesity is a global epidemic, which is mainly conditioned by individuals' dietary and exercising profile.¹ Nowadays, more than 650 million people worldwide live with excess weight.² The global prevalence of obesity has tripled in the last 40 years and led to approximately 4.7 million premature deaths in 2017 – the highest prevalence of it was observed in the Americas,³ where 62% of the population lives with excess weight.⁴ This condition accounts for approximately 55.7% of the Brazilian population, whereas approximately 20% of it lives with obesity.⁵

Obesity is a risk factor for several chronic diseases,⁶ such as diabetes,⁷ hypertension, cardiovascular diseases, chronic renal disease and certain neoplasms,^{8,9} among others. Nowadays, the syndemic generated by biological and social interactions between COVID-19 and obesity has increased the susceptibility of these patients to these diseases and hindered their prognosis.¹⁰ In addition, several biopsychosocial processes – such as political, economic, social and cultural environments, which play strategic role in the analysis applied to the problem and in propositions for interventions – can influence the condition of individuals with excess weight, rather than just influence them and their choices.¹¹⁻¹³

Thus, it is essential improving the multifactorial understanding about obesity development and its biological mechanisms to avoid stigma and misguided concepts linked to the assumption that excess weight is exclusively associated with individual features inherent to behaviors such as laziness and lack of willpower. Therefore, it is necessary bridging the gap between scientific evidence and the conventional narrative of obesity approach, which persists, even in physician-patient interactions with the health system.¹⁴

Inadequate use of language, either verbal or non-verbal, can lead individuals living with obesity to avoid health care, as well as to interrupt or impair the physician-patient relationship, a fact that can result in weight gain and in increased mortality rates.¹⁴ Individuals living with excess weight internalize these messages, a fact that can trigger physical and mental issues, as well as non-adaptive behaviors. Terms such as obesity and morbid obesity are negatively perceived by patients living with excess weight, even when they are uttered by health professionals.¹⁵

Stigmas emerge through verbal and non-verbal language, as well as through infrastructural unpreparedness, such as lack of properly sized arm cuffs to measure the blood pressure of individuals living with excess weight and properly sized heavy-duty chairs where they can sit in. Widths of corridors and other adaptations to environments are also often inadequate. However, they should be designed to enable

the free passage of individuals with large abdominal circumference.¹³ With respect to verbal language, the vocabulary adopted by health professionals sometimes shows technical unpreparedness to approach patients living with obesity.

In addition, there is considerable evidence to suggest that simply talking about obesity based on a technical, compassionate and prejudice-free vocabulary can lead to weight loss. Such a fact emphasizes that patients should be treated as biopsychosocial beings; thus, all aspects involving them, such as their socioeconomic and mental health condition,¹⁶ should be taken into account in order to bring them health benefits.

Thus, it is necessary adapting therapeutic approaches to fully cover patients' structural dimensions, since social stigma is a frequent factor observed at the time to approach obesity and it has impact on therapeutic outcomes and treatment adherence rates. Therefore, the aim of the current study was to analyze some aspects of the clinical approach to, and of strategies to cope with, this disease by Endocrinology – and Metabology – expert physicians.

MATERIAL AND METHODS

The current cross-sectional observational study is an original, applied research carried out with Endocrinology and Metabology – expert physicians in Brazil. Procedures were approved by the Local Research Ethics Committee – CEP HU-UFJF (n. 36679420.9.0000.5147). Data collection took place on the Google Forms online platform, from October 26th, 2020, to January 26th, 2021.

Sampling was performed in two different stages: the first stage comprised a survey on the number of medical experts participating in the "EndoNews" group, on the WhatsApp Online Platform. The "EndoNews" group aims at scientifically updating more than 2,400 experts working in the Endocrinology and Metabology field. Based on the total number of participants (approximately 2,400), and according to instructions provided by the Brazilian Institute of Geography and Statistics (Instituto Brasileiro de Geografia e Estatística - IBGE), the sample was estimated at 10% of the total number of physicians. The second stage consisted in sending the questionnaire to them, once a week, through the administrator and founder of the "EndoNews" group. In total, 251 responses were obtained at the end of sample data collection, 2 of them were invalidated because they did not meet all requirements set in the Free and Informed Consent Form (FICF).

The exclusion criterion comprised questionnaires completed by physicians who were not Endocrinology and Metabology experts. Thus, 246 of the 249 responses have met all criteria and were taken into consideration in the analyses.

The structured questionnaire technique was

herein used to collect information. Given the deficit of validated questionnaires focused on this topic in the medical literature, and since the current research is a pioneer study, the herein applied questionnaire was structured based on international guidelines available for the topic.^{14,16,17} The questionnaire comprised 20 direct-response questions about obesity and participants' approach to it in their clinical practice.

The first section of the questionnaire comprised 8 questions focused on describing and featuring the sample. They gathered information about participants' sex, age, region of practice, service network (public or private) and specialization type (Broad Sense and Strict Sense).

The second section of the questionnaire comprised 12 questions based on global consensus about the care provided to patients living with excess weight.^{14,16,17} Thus, topics such as adequacy of verbal and non-verbal language, stigmas involving obesity, adequacy of work environments, adapted equipment availability, difficulties faced by physicians to treat these patients and development of holistic and individualized approaches were addressed in this section. The aim of this second series of questions was to measure the compliance of physicians' knowledge and working conditions with recommendations and guidelines currently advocated by entities in the Endocrinology and Metabolism field.^{14,16,17}

Physicians were identified through their registration number in the Regional Council of Medicine (CRM – Conselho Regional de Medicina) in order to avoid multiple responses from the same participant. The FICF was made available on the platform at the time participants accessed it. They were required to authorize the distribution of the form so the questions could be subsequently made available on the screen.

Questionnaire completion was carried out based on expert physicians' theoretical-practical experiences in approaching patients living with excess weight. Data were collected for further analysis by researchers.

Statistical analysis

Numerical data were described as mean and standard deviation. Categorical data comprised clusters of similar categories, which were formed in cases whose responses recorded very low frequency. Categorical variables were subjected to Chi-square tests, at 5% alpha, using statistical software (RStudio version 1.4.1106-5 and R version 4.0.5). It is worth emphasizing that the aim of the current study is not to define causal relationships, but to report noteworthy findings for future and more specific research about each of the herein defined variables.

RESULTS

The herein analyzed sample was featured based on information collected through the first section of the questionnaire, as shown in Table 1. Furthermore, questions based on global consensus about the care provided to patients living with excess weight gathered data, which are presented in Table 2.

Based on the current results, 72% of participants self-reported to have more difficulty to treat patients living with excess weight than patients without excess weight (PWD). This variable has generated statistically relevant associations, as shown in Table 3. Physicians who reported lack of additional difficulty to treat patients living with excess weight (PND) recorded higher relative frequencies for the following outcomes than PWDs: they believe in therapeutic success based on lifestyle changes and on long-term medical follow-up with, or without, pharmacological treatment; they believe that the approach adopted during their consultations encourages patients to adhere to and follow the proposed treatment; their work environment is better equipped to deal with patients living with excess weight; they work more often in Midwestern, Southern and Southeastern Brazil.

In addition to the four correlations described in Table 3 and to the information made available in Table 2, the question "what results for the overweight patients do you believe that addressing the topic 'excess weight' during consultations whose main complaint is not about it brings?" (Variable "approach to excess weight") has generated the following results: 74.59% \pm 1.20%, for relevant results in patients' clinical history; 16.53% \pm 0.87%, for non-significant results in patients' clinical history; and 8.87% \pm 0.51%, for uneasiness and partial loss of good physician-patient relationship.

Thus, only 4% \pm 2.4% (p-value= 0.007) of PND believe that addressing excess weight during consultations whose main complaint is not about it has negative impact on physician-patient relationship (variable "approach to excess weight"). On the other hand, 11% \pm 2.3% (p-value= 0.007) of PWD believe in the likely negative impact of such an approach on physician-patient relationship.

Based on the analysis applied to the association of variables "service network" and "work environment", 73% \pm 4.06% of physicians who only work in the private network believe that their work environment is equipped to serve patients living with excess weight, whereas 45% \pm 4.4% of physicians who work in both (public and private) networks, or just in the public one, believe so (Table 4).

Based on the correlation between data about participants' federative unit of practice and variable "therapeutic success", 100% of physicians working in the Southern region reported to believe in sustained weight loss enabled by some long-term treatment modality

Table 1: Study sample featuring in comparison to the target population.

		Study population ^a	Target population ^b
Mean age		44.3	45.5
Distribution based on sex	Male	23.6%	29.4%
	Female	76.4%	70.6%
Distribution based on region	Midwestern	8.5%	9.2%
	Northeastern	10.6%	16.5%
	Northern	10.2%	2.9%
	Southeastern	65.3%	54.9%
	Southern	5.3%	16.6%
Service network	Private	48.4%	
	Public/public and private	51.6%	
Broad sense specialization	Medical residency	35.5%	
	Specialization	16.9%	
	Medical Society's Certificate	65.7%	
	All the above	4.4%	
Strict sense specialization in the medical field	None	61.8%	
	Master's Degree	31.3%	
	PhD	10.6%	
	Post-Doctorate	1.6%	

^aData deriving from the first part of the applied questionnaire. ^bAlthough the question "Have you ever been the target of social stigma for having excess weight?" is part of the study population description section, it was addressed in separate in section "Results". ^cData released by Demografia Médica no Brasil 2020. [Medical Demographics in Brazil 2020].

Table 2: Questions and answers about healthcare provided to patients living with excess weight.

	Yes*	No*
(Difficulty) Do you find it harder to treat patients living with excess weight?	177 (72%)	69 (28%)
(Work environment) Do you believe that your work environment and equipment are suitable to deal with patients living with excess weight?	144 (58.5%)	102 (41.5%)
(Topic "excess weight") Do you approach the topic "excess weight" during consultations whose main complaint is not about it?	243 (98.8%)	3 (1.2%)
(Language using) Do you always use compassionate, prejudice-free and technical language?	246 (100%)	0 (0%)
(Language results) Do you believe that the language type used to approach these patients can influence their therapeutic outcomes?	245 (99.6%)	1 (0.4%)
(Therapeutic success) Do you believe in therapeutic success based on changes in lifestyle and on long-term medical follow-up with, or without, pharmacological treatment?	212 (86.2%)	34 (13.8%)
(Coping with obesity) Do you agree with the sentence "Obesity is a chronic and multifactorial health condition that requires long-term treatment"?	246 (100%)	0 (0%)
(Small advance/persistent mistakes) Do you believe that valuing small advances, even if they do not have major effects on patients' BMI, is more important than warning about persistent mistakes made by them and about their consequences?	230 (93.5%)	16 (6.5%)

(Making treatments available)		
Do you try to make available different obesity treatment options for your patients?	246 (100%)	0 (0%)
(Influence of the approach)		
Do you believe that the approach adopted in your consultations encourages patients to adhere to and follow the proposed treatment?	231 (93.9%)	15 (6.1%)
(COVID-19 and obesity)		
Do you agree that "excess weight is an independent risk factor for worse outcomes in (COVID-19) SARS-COV-2 infection"?	243 (98.8%)	3 (1.2%)

*Answers collected in the second part of the applied questionnaire. Answers such as "yes, always/yes, often/yes, sometimes" were considered "yes", whereas answers such as "no, never/no, rarely" were considered "no". Although the question "what results for the overweight patients do you believe that addressing the topic 'excess weight' during consultations whose main complaint is not about it brings?" (Variable "approach to excess weight") is part of the second section of the questionnaire, it was addressed in separate in "Results".

Table 3: Variables associated with the presence or absence of self-reported difficulty.

		Do you find it harder to treat patients living with excess weight?		Chi-square test p-value
		No, never*	Yes*	
Therapeutic success*	Yes	145 (81.9%)	67 (97.1%)	0.004
	No	32 (18.1%)	2 (2.9%)	
Influence of the approach*	Yes	162 (91.5%)	69 (100%)	0.001
	No	15 (8.5%)	0 (0%)	
Work environment*	Yes	94 (53.1%)	50 (72.5%)	0.009
	No	83 (46.9%)	19 (27.5%)	
Region of practice	Midwestern	12 (6.8%)	9 (13%)	0.012
	Northeastern	24 (13.6%)	2 (2.9%)	
	Northern	23 (13.1%)	2 (2.9%)	
	Southeastern	108 (61.4%)	52 (75.4%)	
	Southern	9 (5.1%)	4 (5.8%)	

Answers collected in the second part of the applied questionnaire. Answers such as "yes, always/yes, oftentimes/yes, sometimes" were considered "yes". "Therapeutic Success" corresponds to the question: "Do you believe in therapeutic success based on changes in lifestyle and on long-term medical follow-up with, or without, pharmacological treatment?". "Influence of the approach" corresponds to the question: "Do you believe that the approach adopted in your consultations encourages patients to adhere to and follow the proposed treatment?". "Work environment" corresponds to the question: "Do you believe that your work environment and equipment are suitable to deal with patients living with excess weight?". There was loss of data in category "Region of practice", since one participant informed a non-existent State.

(changes in lifestyle and pharmacological treatment), in comparison to 95.2% of physicians working in the Midwestern region; 88.1%, in the Southeastern region; 80.7%, in the Northeastern region; and 64%, in the Northern region.

Table 2 shows results recorded for the question "Do you believe that valuing small advances, even if they do not have major effects on patients' BMI, is more important than warning about persistent mistakes made by them and about their consequences?" (variable "small advances/persistent mistakes"). Based on the correlation between this variable and physicians' expectations towards some long-term treatment

modality, most physicians who value small advances are optimistic about long-term outcomes, whereas the minority of those who warn patients about persistent mistakes made by them believe in the aforementioned treatment (Table 5). Based on the association between variables "sex" and "small advances/persistent mistakes", 14% ± 4.5% of male physicians make the option to expose persistent mistakes made by patients instead of valuing their advances, whereas only 4% ± 1.4% of female physicians do so (Table 5).

The question "Have you ever been the target of social stigma for having excess weight?" has shown that 20.96% of participants have already experienced this

stigma, whereas 16.93% of them have never experienced it, despite having already lived with excess weight. The remaining individuals (61.69%) reported to have never experienced such a stigma or lived with excess weight. The current study has also evidenced that $20\% \pm 4.1\%$ ($p\text{-value} < 0,05$) of interviewed physicians with past or current personal history of excess weight doubt the success of long-term obesity treatments, whereas only $10\% \pm 2.4\%$ ($p\text{-value} < 0,05$) of physicians who have never lived with excess weight doubt this therapy.

DISCUSSION

Most respondents have reported great difficulty to treat patients living with excess weight; such a difficulty was more often associated with clinical strategies that shy away from current guidelines. Important factors predictive of this difficulty, which had been previously described in the medical literature, were identified in the current study. Among them, one finds infrastructural unpreparedness in work environments and professional practice held in Northern and Northeastern Brazil.^{13,19} Because of the self-reported difficulty, these professionals (PWD) tend to not believe in the influence of their approach on patients' adherence to treatment

and on their therapeutic success.

Several studies have emphasized the important role played by work environments' infrastructural and material preparedness in the desirable interaction between physicians and patients living with excess weight.^{13,14,16,17} It is recommended using adequate instruments, such as properly-sized arm cuffs to measure patients' blood pressure, chairs capable of accommodating patients in a comfortable way, adapted corridor width, among others. Inadequate infrastructures help perpetuating social stigma in patient-health team relationships,¹⁴ since patients do not adapt to the available environment. In addition, inadequate material prevents or hinders the implementation of common diagnostic procedures, and it can impair the lives and prognosis of these patients.

Moreover, physicians who only work in the private network more often reported that their work environments are equipped to serve patients living with excess weight. Thus, the private health system has proved to be better adapted and in compliance with guidelines about combating obesity and the stigma associated with excess weight.^{14,16,17} Likely, this finding has suggested infrastructural and material discrepancy between Brazilian private and public healthcare

Table 4: Report of material and infrastructural preparedness of work environment in the private and public network/both networks.

		What is the healthcare service network you work in?		Chi-square test p-value
		Only in the private network	Public network/both	
Work environment*	Yes	87 (73.1%)	57 (44.9%)	>0.001
	No	32 (26.9%)	70 (55.1%)	

*"Work environment" corresponds to the question: "Do you believe that your work environment and equipment are suitable to deal with patients living with excess weight?"

Table 5: Different medical behaviors associated with physicians' sex and with their belief in the long-term therapeutic success.

		You believe that the most important action to be taken during the consultation with these patients lies on		Chi-square test p-value
		Warning patients about persistent mistakes made by them and about their consequences	Valuing small advances, even if they do not have major effects on patients' BMI	
Sex	Female	8 (50%)	180 (78.3%)	0.023
	Male	8 (50%)	50 (21.7%)	
Therapeutic success*	No	9 (56.25%)	25 (10.9%)	>0.001
	Yes	7 (43.75%)	205 (89.1%)	

*"Therapeutic Success" corresponds to the question: "Do you believe in therapeutic success based on changes in lifestyle and on long-term medical follow-up with, or without, pharmacological treatment?"

networks.

Furthermore, the country region where physicians hold their practice is another relevant factor affecting the quality of the Brazilian healthcare service and the medical perception about the difficulty to treat patients living with excess weight. The Brazilian health system presents different performances depending on the analyzed region.¹⁹ The Southeastern, Midwestern and Southern regions present the best regional indicators, and it means that they have the best health service performance.¹⁹ On the other hand, the Northern and Northeastern regions present the worst regional indicators in the country, except for regions covering Northeastern states' capitals; therefore, their health service has low performance.¹⁹

The highest prevalence of PWD was associated with the Northern and Northeastern regions, whereas the highest prevalence of PND was attributed to the Midwestern, Southeastern and Southern regions. These findings corroborated data on the regional performance of the Brazilian health system¹⁹. Therefore, it is possible seeing that the region expert physicians work in influences their perception about self-reported difficulty to treat patients living with excess weight. This outcome can be attributed to differences in public policies, budgets, human resources and infrastructural preparedness among Brazilian regions.¹⁹

Based on the herein conducted analysis, the incidence of greater difficulty to treat patients living with excess weight was directly associated with factors that may affect the quality and adequacy of the investigated physicians' consultations. As self-reported, the PWD group believes less often in their patients' long-term therapeutic success and adopts lesser encouraging approaches during their consultations. According to recommendations in the medical literature, Endocrinology – and Metabology – expert physicians should provide their patients with personalized treatments comprising long-term follow-up with, or without, pharmacological therapy.^{14,16,17} Radical goals and excessive demands for short-term outcomes are discouraged by the available guidelines.^{14,16,17} Furthermore, the verbal and non-verbal language used by physicians towards their patients must be able to encourage adherence to, and the continuation of, the treatment.²⁰

The current consensus about the treatment to be applied to patients living with excess weight also emphasizes that physicians' excessive demand for numerical outcomes (abdominal circumference or BMI),^{14,16,17} as well as criticisms made by them about negative or null outcomes in the treatment, are negatively perceived by patients; thus, this behavior can drive patients away from treatment and increase their likelihood of abandoning it.^{14,15,17} Thus, it is recommended that Endocrinology – and Metabology – expert physicians should emphasize the small advances and achievements of their patients in order to encourage

them to follow the therapeutic planning.¹⁴ According to most interviewed physicians, small achievements should be valued over persistent mistakes, and this statement corroborates medical studies available in the literature.

In addition, physicians who make the option to highlight small advances achieved by patients during treatment, instead of warning about their persistent mistakes and their consequences, presented higher positive expectation rates towards some long-term treatment modality (Table 5). Furthermore, female physicians tend to warn their patients about persistent mistakes and their consequences less often than male physicians (Table 5).

Likely harmful effects of the social stigma associated with excess weight and its negative impacts on treatments provided to these patients are another aspect widely addressed in the medical literature about this topic. Victims of such a stigma tend to internalize negative messages linked to guilt and lack of proactivity, and it can lead to maladaptive physical, mental and behavioral issues, such as neglecting their own health.^{11,12,14,15,17} Thus, corroborating the herein described information, the current study has shown that physicians who have already experienced excess weight tend to have lesser expectations about their patients' sustained weight loss than those who have never experienced it.

Thus, the present study is pioneer in its proposition, namely: assessing Endocrinology – and Metabology – expert physicians' agreement with the current consensus about the treatment to be applied to individuals living with excess weight at national level. Thus, there is room for future research focused on further analyzing each variable and correlation described in the current study.

However, the current study presents some limitations. The cross-sectional design does not allow analyzing the causal effect of these behaviors. Furthermore, the questionnaire was completed based on self-reported information; this factor can generate higher susceptibility to recall biases, which is an intrinsic limitation of cross-sectional studies. In addition, since the literature lacked validated questionnaires on the topic at the time the current research was conducted, and since the validation process was beyond the aims of the authors, the herein analyzed data were gathered through the application of an original questionnaire. Finally, the current study used non-probabilistic convenience sampling, which resulted in small macro-regional divergence between study and target populations.

CONCLUSION

The aim of the current study was to analyze aspects of the clinical approach to, and of strategies to cope with, obesity by Endocrinology – and Metabology –

expert physicians.

Based on the previously presented results and correlations, it is possible concluding that most participants disagreed with what is advocated by several consolidated guidelines and recommendations on the topic.^{14,16,17} As it was evidenced throughout the current study, the approach to, and treatment of, individuals living with excess weight is a multifactorial topic, which was herein correlated to key factors, such as infrastructural preparedness, region of practice, and public or private network.

Moreover, it was possible to find two different profiles among participants, namely: PWD and PND. The PWD group appeared to adhere less to the guidelines than the PND group. Among several instructions available in these guidelines, it is possible highlighting the encouraging approach and greater belief in therapeutic success, which were more associated with the PND group.

Finally, it is essential encouraging reflections about language using, strategies and infrastructural preparedness in comprehensive care provided to individuals living with excess weight to enable subsequent changes in physicians' attitude towards their treatment.

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