# Calling: never seen before or heard of – A survey among Swiss physicians

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**Abstract**

**BACKGROUND:** Research is needed to gain a deeper understanding of what motivates physicians to do their work and what keeps them in the profession.

**OBJECTIVE:** To explore calling as an approach to work in a sample of physicians.

**METHODS:** We designed an online survey addressing career choice and career calling among physicians in French-speaking Switzerland, and measured associations between calling and categorical variables (participant characteristics, motivations for choosing medicine, career choice(s) and consistency, and definition of calling).

**RESULTS:** The majority of physicians (n=229) reported that a calling was not a career motivator. The main reasons for becoming a physician were to be useful (n=173), the scientific aspects of medicine (n=168), and altruism (n=153). Viewing medicine as a calling was significantly associated with having been attracted specifically and only to the medical career and stability of this career choice. Physicians defined a calling as internal summons (n=140), passion (n=126), and sense of purpose in life (n=101). Being in the right place, internal summons, and passion were significantly more often considered as a definition for calling by physicians with a calling.

**CONCLUSION:** A sense of calling influences career choice and professional stability, and might play a protective role in exhaustion or dissatisfaction at work.

Keywords: career choice, professional stability

## 1. Introduction

Since the 1961 publication of *Boys in White* by Howard Becker et al. (1), describing an ethnographic study of students at a US medical school, times have changed. If the study has to be replicated in 2020, the book should be entitled *Women in White* (2); however, more importantly, we not only know more about how medical students live, but we have also gained knowledge about what it means to be a physician today. What is striking in the literature on the working experience of physicians is the alarming observation of their physical and psychological health (e.g., substance abuse, burnout), commitment to work (e.g., dissatisfaction with medical practice, demoralization, and loss of meaning), and work environment (e.g., economic pressures, physician shortage, loss of autonomy, malpractice claims, and complaints) (3–10). A "diagnosis" of a collapse of morale among hospital physicians has even been made (11).

On the other hand, a prominent physician, Siddharta Mukherjee, in a recent New York Times article entitled "For doctors, delving deeper as a way to avoid burnout," made the case for an alternative look (12). He states that avoiding burnout is possible "only, perhaps, by finding personal, often deeply specialized purpose in our work," and concludes as follows: "We [our group] didn't burn out, perhaps, by burning a little more (12)." While Mukherjee remains prudent, as shown using "perhaps" in both quotes, he refers to the deeper motivation of becoming and being a physician as a means to resist the constraints, which apparently have invaded the field.

What makes physicians burn a little more? Mukherjee describes not only external factors that determine the choice of a medical career and the joyful aspects of the profession, but an inner deep rooted motivation, which may be referred to as the concept of a calling. Indeed, research on calling shows a link between perceiving a calling and greater career maturity, career

commitment, work and life meaning, and job and life satisfaction (13–18). However, the definition of a calling varies from author to author and changes over time, and is the subject of ongoing debate (19,20). Particular emphasis is placed on different or even opposite facets of a calling, which is related to either an inner requiredness of passion and enjoyment or an outer requiredness of duty and destiny (21).

Duffy and Dik (2013), whose conceptualization has served as a basis for many studies, described a *calling* as a combination of three components: an external summons, meaning/purpose, and prosocial motivation (20). With this three-component definition, they made a distinction between *calling* and constructs such as *work centrality*, *work commitment,* or *work engagement* (20).

The starting point of the present study was a statement from a physician about the non-reality of a calling in those who choose medicine as a career (see methods below), contrary to what Mukherjee seems to assume. To gain further insights into calling as an approach to work in a population sample of physicians, we designed an online survey. We decided to mainly rely on how the participants understand the term *calling* and aimed to determine whether they consider themselves and physicians in general to have a calling. Additionally, we linked the issue of calling with career choice and professional consistency.

The authors of a recent review reported that the concept of work as a calling is likely to provide key findings about how individuals relate to their work and organizations (21). With respect to medicine, few studies have explored the issue of career calling among physicians. These studies tended to examine whether a calling was associated with a variety of markers such as well-being or burnout (22–24) or focused on intrinsic factors that motivate to be physicians and the meaning of medical work (25). A qualitative study by Bott et al. explored career calling experience of 17 physicians and provided insights into how calling fits with a medical career,

is maintained over time or is expected to evolve in the physicians' future career trajectories (26).

Our study aimed to investigate a complementary perspective by assessing the potential link between experience of a calling, career choice, and professional consistency in a population of physicians of all specialties.

## 2. Methods

This study was designed as an online survey questionnaire addressing career choice and career calling among physicians working in *a certain area of a country:* in French-speaking Switzerland.

### *2.1. Context of the study*

As part of another study by our team (manuscript under review) on physicians' medical experience, thirty-three physicians from different medical specialties were asked, among other questions, to indicate on a scale from 0 to 10 to what extent they agreed with a series of statements by peer physicians regarding various aspects of their work and experience. The statements were collected from biographical books or books physicians wrote on their practice. One of these statements from a young general practitioner addressed calling and the practice of medicine:

> *We often hear: "To be a physician, you must have a calling. Calling? I don't know what it is. I have never seen it. Nobody introduced me to it. And no doctor or student has ever told me that he/she has it."* (Jaddo, 2013 (27): Translation by the authors)

Results showed that physicians were especially ambivalent with respect to this statement, with over a third of them indicating the middle ("cannot decide") value of the scale. This

finding prompted us to further examine the phenomenon of calling as a motivator for career choice among a larger sample of physicians.

*2.2. Questionnaire*

An online survey questionnaire was developed based on the literature and on findings of the previously mentioned study by our team. It contained both open and closed questions with response options or a response scale, and included four sections: (1) *personal and professional data* (e.g., gender, medical specialty, workplace); (2) *motivations for choosing medicine as a career* (e.g., scientific aspects, a certain altruism or a need to act) (28,29); (3) *career choice(s) and consistency of choice* (e.g., medicine as the only choice of career or not, change in choice or desire to choose medicine again); and (4) *defining the construct of calling* (e.g., a calling is *a predisposition*, *a passion* or *a sacrifice*) (16,19,20,30) (see Table 1).

Please insert table 2 here

Our purpose was to examine physicians' reasons for *choosing medicine*; if a sense of calling was part of their reasons, they were asked to recollect its emergence. We also wanted to know if medicine was their only career choice or if they had hesitated (which other options for studies/careers existed?), and if they studied another discipline or had another profession prior to entering medicine. The statement by Jaddo (see above) was used to introduce the issue of calling, to assess the degree of agreement with Jaddo, and to investigate how participants themselves define a calling. Last, physicians were asked whether they confirmed their career choice (*staying in medicine*) or whether they wished to have another profession.

The survey questionnaire was elaborated to allow it to follow this specific path. It was provided online using LimeSurvey®.

*2.3. Participants and data collection*

We used a snowball method to disseminate the survey invitation (31): three of the authors (LSM, FS, and CB) sent an email, with a link to the online survey, explaining the rationale of the study to physicians from their personal and professional networks. Physicians were asked to participate and send the survey link to their colleagues and networks, and so on. Given the small number of inclusion criteria (being a physician and working in *a certain area of a country:* French-speaking Switzerland), a snowball sampling method seemed particularly suitable, adequate, and effective. The survey questionnaire was completed anonymously. It remained open from October 23 to November 12, 2018.

*2.4. Data analysis*

We looked for potential associations between the presence of a calling and categorical variables (i.e., gender, specialty, position, place of work, year of graduation, motivations for the profession, the process of choice (career choice and choice consistency), and the definition attributed to a calling) using Pearson' s chi-squared test of independence. This test is valid if the expected frequencies of almost (more than 80%) all cells are higher than five.

When the validity of the chi-squared test was not satisfactory (low expected frequency in some cells), we used the Fisher's exact test (FET) instead (which remains valid even if low expected frequency is observed in some cells).

The difference in means of continuous variables between the two groups (based on the absence or presence of a calling) was assessed using Student's t-test for the year of

graduation, the number of reported motivations, and the degree of agreement with the statement by Jaddo (see above). All the analyses and data preparation steps were performed in an R environment for statistical computing (32). All statistical tests were two-tailed, and the significance level for all tests was fixed at $\alpha = 0.05$, prior to analysis.

Our study is exploratory, and we have no prior hypothesis to be verified or rejected. In addition, we find it very difficult to limit ourselves to a threshold of 0.05 as the significance level of the first error probability, as warned by many statisticians (33,34). Actually, a non-significant p-value is not a sign of the nonexistence of an effect, as a significant p-value does not really indicate the existence of a true effect. Therefore, we will report all potentially interesting findings from our results.

This study was approved as exempt by our local Research Ethics Committee. Participants were fully informed of the study, and consented by filling out the online questionnaire. No participant identifier or health information were recorded.

## 3. Results

Two hundred and eighty-three physicians completed the survey (144 were female). Medical specialties with the highest number of respondents were general internal medicine (n=118), adult and child-adolescent psychiatry (n=43), anesthesiology (n=31), and surgery (n=22). Specialties with fewer respondents, such as medical oncology (n=15), physical medicine and rehabilitation (n=12), pediatrics (n=11) were classified in an “Others” category. Respondents from hospitals were chief residents (n=96), residents (n=84), senior staff members (n=54), and chiefs of service (n=14); 35 respondents were physicians in private practices. Nearly three-

quarters of the participants worked in a university hospital. The median year of graduation from medical school was 2008 (range: 1974 – 2018).

Please insert table 2 here

In the following, we present the results by distinguishing between physicians who had experienced or experienced a calling and physicians who had chosen medicine for other reasons.

*3.1. Sense of calling and personal/professional characteristics of the respondents*

In our sample, we observed no association between "considering medicine as a calling" and any personal/professional characteristics (see Table 2).

*3.2.1. Reasons for choosing medicine as a career*

A *calling* is one of the motivations to choose medicine as a career for fifty-four physicians (see Table 3). It was the one and only motivation for three physicians: two men and one woman working as senior staff members in general internal medicine, nephrology, and psychiatry. These three physicians traced their sense of calling back to childhood; they had always wanted to become physicians, and would make the same choice today. For the overwhelming majority of physicians (n=229), a calling was not a motivator.

Considering the whole sample, the main reasons for becoming a physician were: *the need to be useful and/or to act* (n=173), *the scientific aspects of medicine* (n=168), and *a certain altruism* (n=153). Moreover, results showed that physicians who had or experienced a calling

tended to be inspired by *a certain idealism*, whereas their colleagues who had not or have not, tended to opt for medicine for its *scientific aspects* or *without a specific reason*.

A significant association was observed between *life events* as a career motivation and *a sense of calling*. Indeed, 24% of physicians who viewed their choice of medicine as a calling – vs. 11% of physicians who did not – report having experienced illness themselves or illness/death of a loved one. Finally, the number of reasons to choose medicine was significantly higher among physicians who had experienced or experienced a calling.

Please insert table 3 here

*3.2.2. Consistency in career choice: staying in medicine*

Viewing medicine as a calling was significantly associated with having been attracted specifically and only to the medical career, and stability of the choice of being a physician (see Table 3). Among responding physicians who considered having a calling, 78% did not have any other career interests, and 78% would choose medicine again if they had to decide (*staying in medicine*). Conversely, 22% would hesitate or make a different choice, for reasons like having more family time, but especially in relation to recent developments in medicine, considered too mechanistic and algorithmic, too demanding, etc.

Regarding physicians without a sense of calling, 67% reported hesitation when choosing their studies. About 55% would make the same choice again, while 45% hesitated or would not choose medicine again, because, among other reasons, they considered they had a poor quality of life, had made too many concessions with respect to their personal life, and their colleagues and patients are not grateful enough. Recent changes in the profession of medicine

were also emphasized such as the repetitiveness of work, the prominence of legal aspects, and the diminished prestige of the profession.

*3.3. The meaning of calling*

While physicians with a sense of calling did not agree with the statement from Jaddo that a calling is not a real issue in medicine (median, 3; range, 0 – 10), physicians without a sense of calling agreed (median, 7; range, 0 – 10) (see Table 4). The level of disagreement (from 0 to 10) between the two groups was highly significant ($p < 0.0001$).

Physicians who participated in the survey defined a calling as an *internal summons* (n=140), a *passion* (n=126), and a *sense of purpose in life* (n=101) (see Table 4). *Being in the right place*, *internal summons*, and *passion* were significantly more often considered defining components of a calling by physicians who considered that they had a calling.

Last, the following trend was observed among physicians whose choice of career was not motivated by a calling (versus physicians with a sense of calling): they more often considered that a calling means *feeling elected/being chosen*.

Please insert table 4 here

## 4. Discussion

This study aimed to investigate a potential link between physicians' subjective experience of a calling, career choice, and professional consistency.

A sense of calling was associated with greater professional consistency. To put it differently, physicians who reported experiencing a calling, among other career motivators, seem "to find what they were and are looking for." This assumption is supported by the finding that these physicians defined a calling significantly more often as "being in the right place." One might thus consider that there is a "give-and-take" or resonance (35) between the physicians and their tasks and work environment. This somehow undermines the assumption that a calling is a kind of altruistic "give-without-take" and thus more in line with the usual exchange individuals undertake with each other. It remains unanswered whether it is a calling, which makes a difference or if these physicians have a general disposition to relate to the world in a way that allows them to feel adequate (*in the right place*), responding (*internal summons*), and to experience *passion* as these responses are significantly more often reported in the questionnaire survey. It is of note that the prevailing definition provided by the physicians of Bott and al.s' study rather indicated a sense of feeling drawn or guided to pursue a career (26). As stressed by the authors, this definition corresponds to that of Dick and Duffy highlighting the external summoning nature of a calling (36). Variant definitions indicating that calling has an external source (*external summons*), is a *sacrifice* or *predisposition* or provides a *sense of purpose in life* were shared by the participants of our study, regardless of whether or not they declared having a calling.

Physicians, who did not have a calling among their motivations, indicated less professional consistency. Particularly alarming was the high proportion of them who questioned their career choice – 45% indicated at not being sure about their choices. Even if ultimately only around one in ten Swiss physicians actually decide not to stay in medicine and to quit their job (37), any form of work dissatisfaction is negative for physicians, patients, and society, and may lead to a diminished quality of care. While the reasons for these disappointments may be

multiple, the question arises if a sense of calling may serve as a buffer against adversity associated with work.

If this later assumption is true, addressing early motivators to study medicine and become a physician is a major issue in order to prevent later deceptions. In this regard, physicians who declared having a calling tended to be inspired by *a certain idealism* when choosing the profession compared with those who did not experience a calling and who considered the *scientific aspects* of work more relevant for career choice. While medicine is certainly a scientifically grounded discipline, it is also an applied discipline that consists of relational aspects and human encounters. These relational aspects of medicine might be experienced in different ways, and some physicians may even feel threatened or otherwise distressed by patient encounters, and the associated perception of suffering. *Idealism*, together with an increased number of motivations by physicians with a calling – which may reflect different facets of medicine and lead to increased satisfaction – may again be an asset to maintain professional consistency. Scientific skills, along with a lesser number of motivations and, for some physicians, a feeling of not knowing why they had chosen medicine, may be, on the other hand, a cause of dissatisfaction. In addition, it has been shown that hospital users' complaints are more often related to clinical communication and interpersonal relationships with physicians and other health care professionals (38). An unbalanced interest in the technical and scientific aspects of medicine may thus result in negative feedback from patients and lower job satisfaction. Addressing the issue of career motivators in under- and postgraduate medical education may be of direct clinical and practical relevance as well as a way to reflect on the professional aspects of becoming and being a physician. Example of such interventions are reflexivity training for medical students (39) or Osler groups (40), which aim to raise awareness about physicians' identity formation (41). The same holds true for the

meanings attributed to the term “calling”. These meanings could be a starting point to reflect on how physicians situate themselves in the medical field and the representations they are subjected to, be they from their own experience, based on deep-rooted values or dominant discourses. Representations and associated subjective experiences have clinical implications and influence the way in which physicians grow in their profession.

Last, *life events* were also more frequently a motivator for career choice among physicians experiencing a calling. This finding has also been reported in a large study, where career choice of women psychiatrists appeared to be significantly related to physical or psychiatric disturbances in their families (in comparison with women with a university degree who chose other professions) (42). While own life events may increase sensitivity for suffering, and thus a sense of calling, and may contribute to increased empathy – based on experiential knowledge – it may also be a double-edged sword, especially when the life events have not been worked through. Indeed, if the reason for choosing a caring profession is an attempt to fulfil unmet needs of the past or to turn a passive and dependent experience into an active one, the past will still be unresolved and fuel the adopted attitude, with a potential risk of disappointment. In addition, a constant and rigid attitude motivated by denied needs makes the career selection not a choice but a necessity and may lead in the long run to dissatisfaction and/or burnout. This last issue also prompts the question of whether those participants who declared having a calling remain over time in the profession, a question only a longitudinal cohort can answer. Non-significant results between physicians with and without a calling with regard to motivations to choose medicine as a career may indicate that certain motivators such as a *need to be useful*, an *interest for the sick*, *family influences* or *social recognition* operate at a generic level; this might also have an effect on career stability.

The lack of a longitudinal approach also points to other limitations of this study, which cannot access the more subtle subjective experiences associated with a calling. Moreover, culture and language also produce different approaches to a calling. For instance, in French (the language of our study), a calling exists only as one word ("la vocation"), while English has at least two words, "calling" and "vocation." We have also utilized a somewhat static definition but a calling might also be acquired or lost over time, as stressed above.

Finally, only an infinitely small number of physicians viewed a calling as the sole reason for choosing medicine. This result may be related to the evolution of the profession, being increasingly regarded as a job similar to others – an evolution already observed in the nursing profession, which desired to gain some distance from its religious background associated with a sacrificial attitude (43) –, and to the call for a *good life* (*gutes Leben*) (35). This last finding may also explain why a calling as a co-motivator was experienced only by a minority of participants.

**5. Conclusion**

Our study reveals that a calling is considered only by a minority of physicians as a driving force of their career choice. This result, however, does not mean that physicians do not need a certain drive to work and that they rely on it in daily clinical work despite their often deplored professional context. A sense of calling influences career choice and professional stability, and might thus play a protective role with regard to feelings of exhaustion or dissatisfaction with work.

In times of change – increased use of technology, administrative burden, loss of prestige, and so on –, research is needed to gain a deeper understanding of what motivates physicians to

do their work and maintains them in the profession. Introducing the issue of professional consistency in this study can be considered a strength and innovative dimension. Our results invite further investigation of possible links between a calling, job satisfaction, career choice and stability, and the production or loss of meaning in the professional life of physicians.

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## Conflict of Interest

The authors declare that they have no potential conflicts of interest with respect to the research authorship and/or publication of this article.

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## Tables

**Table 1. Constructs and measurement items**

| Construct | Measurement items | References |
|---|---|---|
| Motivations to study medicine | Scientific aspects<br>A certain altruism<br>Life event<br>Calling<br>Social recognition<br>Interest for the sick person<br>Guarantee of a certain income<br>Need to be useful/to act<br>Family influences<br>A certain idealism<br>Interest in the medical world<br>Default choice<br>Without a specific motivation | Goel et al. (2018); McManus et al. (2006) |
| Choice of study and career | I only wanted to study medicine<br>I hesitated between different studies/careers | |
| Definition of calling | Level of agreement with Jaddo's statement about calling<br>Predisposition<br>External summons<br>Feeling elected/being chosen<br>Sacrifice<br>Passion<br>Internal summons<br>Being in the right place<br>Sense of purpose in life | Hunter et al. (2010); Hirschi (2012); Duffy and Dik (2013); Duffy et al. (2018) |
| Consistency of career choice | I would choose again to become a physician | |

| Categorical variables | Total (n=283) | Without a calling (n=229) | With a calling (n=54) | Test statistic (d.f.[2]) | p value[1] |
|---|---|---|---|---|---|
| Gender: Female [%(#)] | 51 (144) | 49 (113) | 57 (31) | $\chi2(1)=0.84$ | NS |
| Medical specialties | | | | | |
| General internal medicine [%(#)] | 42 (118) | 40 (92) | 48 (26) | | |
| Psychiatry [%(#)] | 15 (43) | 15 (35) | 15 (8) | | |
| Anaesthesiology [%(#)] | 11 (31) | 10 (24) | 13 (7) | | |
| Surgery [%(#)] | 8 (22) | 8 (19) | 6 (3) | | |
| Others [%(#)] | 24 (69) | 26 (59) | 19 (10) | $\chi2(4)=2.28$ | NS |
| Position | | | | | |
| Chief resident [%(#)] | 34 (96) | 35 (80) | 30 (16) | | |
| Resident [%(#)] | 30 (84) | 30 (69) | 28 (15) | | |
| Senior staff member [%(#)] | 19 (54) | 17 (39) | 28 (15) | | |
| Private practitioner [%(#)] | 12 (35) | 13 (30) | 9 (5) | | |
| Chief of service [%(#)] | 5 (14) | 5 (11) | 6 (3) | FET[3] | NS |
| Place of work | | | | | |
| University hospital [%(#)] | 72 (205) | 72 (166) | 72 (39) | | |
| Private practice [%(#)] | 16 (44) | 16 (36) | 15 (8) | | |
| Peripheral hospital [%(#)] | 12 (34) | 12 (27) | 13 (7) | $\chi2(2)=0.07$ | NS |
| Year of graduation from medical school [median(range)] | 2008 (1974-2018) | 2008 (1974-2018) | 2006 (1976-2017) | $t(81)=0.59$ | NS |

[1]NS = no significance
[2]d.f. = degrees of freedom
[3]FET = Fisher Exact Test

**Table 2. Personal and professional characteristics of participants**

| Categorical variables | Total (n=283) | Without a calling (n=229) | With a calling (n=54) | Test statistic (d.f.[2]) | p value[1] |
|---|---|---|---|---|---|
| Career motivators | | | | | |
| Need to be useful/to act [%(#)] | 61 (173) | 59 (135) | 70 (38) | $\chi2(1)=1.94$ | NS |
| Scientific aspects of medicine [%(#)] | 59 (168) | 62 (142) | 48 (26) | $\chi2(1)=2.93$ | 0.087 . |
| A certain altruism [%(#)] | 54 (153) | 53 (121) | 59 (32) | $\chi2(1)=0.49$ | NS |
| Interest in the medical world [%(#)] | 37 (106) | 37 (84) | 41 (22) | $\chi2(1)=0.16$ | NS |
| Interest for the sick person [%(#)] | 35 (99) | 33 (76) | 43 (23) | $\chi2(1)=1.31$ | NS |
| A certain idealism [%(#)] | 31 (89) | 29 (66) | 43 (23) | $\chi2(1)=3.23$ | 0.0722 . |
| Family influences [%(#)] | 23 (66) | 22 (50) | 30 (16) | $\chi2(1)=1.08$ | NS |
| Social recognition [%(#)] | 21 (59) | 20 (45) | 26 (14) | $\chi2(1)=0.7$ | NS |
| Guarantee of a certain income [%(#)] | 19 (54) | 20 (46) | 15 (8) | $\chi2(1)=0.48$ | NS |
| Life event [%(#)] | 13 (38) | 11 (25) | 24 (13) | $\chi2(1)=5.42$ | 0.0199 * |
| Without a specific motivation [%(#)] | 11 (32) | 13 (30) | 4 (2) | $\chi2(1)=2.97$ | 0.085 . |
| Default choice [%(#)] | 7 (21) | 9 (20) | 2 (1) | $\chi2(1)=2.09$ | NS |
| Calling as unique motivator [%(#)] | 1 (3) | 0 (0) | 6 (3) | FET[3] | 0.0066 ** |
| Number of motivators [median(range)] | 4 (0 - 11) | 4 (0 - 9) | 5 (1 - 11) | $t(65)=-3.91$ | <0.0001 **** |
| Career choice: medicine as a unique choice [%(#)] | 41 (117) | 33 (75) | 78 (42) | $\chi2(1)=34.7$ | <0.0001 **** |
| Choice consistency | | | | | |
| Yes [%(#)] | 59 (167) | 55 (125) | 78 (42) | | |
| Hesitation [%(#)] | 30 (84) | 33 (75) | 17 (9) | | |
| No [%(#)] | 11 (32) | 13 (29) | 6 (3) | $\chi2(2)=9.74$ | 0.0077 ** |

[1]NS = no significance; .p < .1 = trend; *p < .05, **p < .01, ***p < .001 , ****p < .0001 = degree of significance

[2]d.f. = degrees of freedom

[3]FET = Fisher Exact Test

**Table 3. Motivations to choose medicine as a career and career choice consistency**

| Categorical variables | Total (n=283) | Without a calling (n=229) | With a calling (n=54) | Test statistic (d.f.[2]) | p value[1] |
|---|---|---|---|---|---|
| Level of agreement with Jaddo's statement | 7 (0 - 10) | 7 (0 - 10) | 3 (0 - 10) | t(83)=8.64 | <0.0001 **** |
| Definition of calling | | | | | |
| Internal summons [%(#)] | 49 (140) | 46 (106) | 63 (34) | χ2(1)=4.22 | 0.04 * |
| Passion [%(#)] | 45 (126) | 41 (95) | 57 (31) | χ2(1)=3.86 | 0.0493 * |
| Sense of purpose in life [%(#)] | 36 (101) | 34 (78) | 43 (23) | χ2(1)=1.04 | NS |
| Being in the right place [%(#)] | 29 (83) | 24 (56) | 50 (27) | χ2(1)=12.55 | <0.0001 **** |
| External summons [%(#)] | 28 (79) | 28 (63) | 30 (16) | χ2(1)=0.02 | NS |
| Predisposition [%(#)] | 27 (77) | 26 (59) | 33 (18) | χ2(1)=0.91 | NS |
| Sacrifice [%(#)] | 17 (47) | 17 (40) | 13 (7) | χ2(1)=0.36 | NS |
| Feeling elected/being chosen [%(#)] | 8 (24) | 10 (23) | 2 (1) | χ2(1)=2.8 | 0.0945 . |

[1]NS = no significance; .p < .1 = trend; *p < .05, **p < .01, ***p < .001 , ****p < .0001 = degree of significance
[2]d.f. = degrees of freedom

**Table 4. Agreement with Jaddo's statement and definition of a calling**

**Captions**

Table 1: Constructs and measurement items

Table 2: Personal and professional characteristics of participants

Table 3: Motivations to choose medicine as a career and career choice consistency

Table 4: Agreement with Jaddo’s statement and definition of a calling