

Public social intrapreneurship in healthcare: an analysis through the general measure of enterprising tendency test

Marcelo Kratz Mendes^a, Mauro Mastella^b, Mariana de Freitas Dewes^c

^a kratz.marcelo@gmail

^b mauro@ufcspa.edu.br

^c marianadewes@ufcspa.edu.br



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Abstract

Purpose: This work aims to apply the General measure of Enterprising Tendency test of Health Units managers in Primary Care and assess possible correlations between the entrepreneurial characteristics and the collective activities conducted by the units.

Methodology: Utilizing a primary, cross-sectional, and exploratory approach, the General Measure of Enterprising Tendency test was employed, evaluating five entrepreneurial attributes: need for achievement, need for autonomy, creative tendency, calculated risk-taking, and locus of control.

Results: Managers exhibited intrapreneurial strengths but showed reduced autonomy and creativity. A significant number have a nursing background. There's a marked positive correlation between entrepreneurial tendencies and community services offered.

Practical/managerial implications: This pioneering study delves into the entrepreneurial traits of HU managers, highlighting the importance of promoting entrepreneurship for better healthcare outcomes.

Social implications: Managers' entrepreneurial tendencies have a positive effect on community services. These managers innovatively reshape healthcare, benefiting broader society. Recognizing their aptitude can spur creativity, culminating in specialized community solutions and elevated healthcare standards.

Keywords: Intrapreneurship. Manager. Health unit. Primary care. Public entrepreneurship.

1. Introduction

Entrepreneurship is a term that has stood out worldwide, and in Brazil, since the 1990s, entrepreneurial skills have become important allies of social and economic development (Lima *et al.*, 2011; Vieira *et al.*, 2015). As a field of study, entrepreneurship seeks to understand how opportunities that generate future goods and services are discovered, created, and exploited, by whom, and with what consequences (Venkataraman, 1997).

Current literature suggests that entrepreneurship can assume various forms, including business entrepreneurship, intrapreneurship, and social entrepreneurship. The former is widely recognized as the creation of a company

for autonomous professional practice, the second refers to entrepreneurs motivated by the growth of their employer's organization, and the latter seeks to promote social changes in their context (Trotte *et al.*, 2021).

The innovative entrepreneur is a central figure in the theory developed by Schumpeter. He is the economic agent that brings new products to the market through efficient combinations of production factors, or through the practical application of some invention or technological innovation (Schumpeter, 1993). Since in health care entrepreneurship often translates into the number of lives that are saved or the number of people who receive quality health care (Lomba *et al.*, 2018), the entrepreneur is the figure that creates opportunities for new products or

services, being able to act in private or public organizations.

Entrepreneurship in public health can be described as the use of entrepreneurial expertise to further the public health agenda, offering novel approaches to use resources and stakeholders to confront the public health issues of the 21st century, as stated by Jacobson *et al.* (2015), and Becker, Chahine, and Shegog (2019). In the area of public health, several primary studies can be identified when dealing with entrepreneurial experiences (Borst *et al.*, 2019; Chandra & Shang, 2021; D'Souza & Scathill, 2020; Heinze *et al.*, 2016; Hidayat *et al.*, 2020; Ibáñez *et al.*, 2022; Kahn, 2016; Kirkman *et al.*, 2018; Ramani *et al.*, 2017). Health research has already demonstrated a possible relation between the principles of social entrepreneurship and the values of primary healthcare (Mendes *et al.*, 2022), as well as the identification of characteristics that may be related to those of an entrepreneur in the competencies required for healthcare managers (Mendes *et al.*, 2023).

None, however, addresses the entrepreneur specifically as a social intrapreneur in public health. Due to the emphasis on personal and behavioral characteristics as crucial distinguishing factors of an entrepreneur, it is logical that entrepreneurship studies focus on personality traits to comprehend entrepreneurial tendencies (Ha *et al.*, 2011). The development of the measure of entrepreneurial tendency involves identifying the key traits associated with entrepreneurial behavior and the act of entrepreneurship, although the academic literature still varies on the most crucial entrepreneurial characteristics (Caird, 2013).

Given that public managers have the potential to act as intrapreneurial agents for the Unified Health System (SUS) in Brazil, studying their entrepreneurial tendencies is relevant. Despite previous research carried out in Brazil, (Carvalho *et al.*, 2016; Ferreira, 2011; Jr & Souza, 2005; Santos, 2008), none focused on assessing the entrepreneurial tendency in managers of Health Units (HU), one of the structures that form Primary Care.

Bearing in mind that Primary Care is the citizen's "gateway" to the health system, as it is the first level of contact, to which individuals and the community, in general, bring their needs and problems (Silva, 2013), it is fundamental to study the role of the HU manager as

an intrapreneurial agent. Since this professional's work can be enhanced with knowledge in the applied social sciences, studied in the area of administration and entrepreneurship, this study is opportune because it aims to assess the general entrepreneurial tendency of HU managers, reducing the gap in the literature.

Given the presented context, this work aims to identify the General measure of Enterprising Tendency (GET) test of HU managers and assess possible correlations between the entrepreneurial characteristics of managers and the collective activities conducted by the units. The theoretical concepts on which this research is based are presented below, followed by the methodology. Subsequently, we present the results and discussion, highlighting the practical implications of the findings and after, the conclusion section.

2. Theoretical framework

In the following sections, we outline the theoretical foundation for the development of the concept of public social intrapreneurship, as well as the methodologies used to analyze entrepreneurship in individuals.

2.1 Social intrapreneurship in public health

By going beyond the goal of profit for themselves and aiming at creating value for society, several studies explore the field of social entrepreneurship. Social entrepreneurship includes a diverse set of civil society organizations, social businesses, or social enterprises, which may or may not be profitable, and whose mission is to generate socio-environmental impact (Limeira, 2015).

New management techniques are used with creativity, sustainability, and responsibility to maximize the social capital of people or a community (Sant'ana, 2017), unlike traditional entrepreneurship, as it tries to maximize social returns rather than maximize profit (Silva *et al.*, 2012, as cited in Malavota *et al.*, 2019). The profile of social entrepreneurs stands out for the high degree of credibility and transparency in the management of resources and motivation for a mission based on a vision (Cruz, 2012), in addition to traits common to other profiles of entrepreneurs, such as the search for opportunities, generating innovation, willingness to take risks and tolerance for uncertainty.

The term intrapreneur was coined in the 1980s by management consultant Gifford Pinchot III (Fumagalli, 2008), and designates the person who, within a corporation, assumes direct responsibility for transforming an idea or project into a product profitable through innovation and risk-taking (Chieh & Andreassi, 2008). For the researcher Lana (2010), encouraging intrapreneurship involves creating a structure and climate that enables employees to behave like business owners, allowing for the development of innovative ideas aligned with the organization's strategy, thereby accelerating the pace of innovation.

In the spectrum of literature, there is also a discussion about the unique amalgam of concepts led by employees called social intrapreneurs. According to Alt and Geradts (2019):

First, social intrapreneurship is driven by a social responsibility concern, promoting initiatives that address social or environmental challenges, and going beyond the interests of private individuals and organizations. Second, it occurs within the domain of an established organization, requiring consideration of how social intrapreneurial initiatives can contribute to core organizational objectives and help shape the long-term direction of existing organizations. And third, it develops through a process of entrepreneurship, leading to the identification and exploration of opportunities to create future goods and services (Alt & Geradts, 2019, p. 1).

When operating in public sectors, social intrapreneurs can be classified as public social intrapreneurs. They are leaders in the public sector, in local or national governments, or representatives of international organizations, who harness the power of social innovation and social entrepreneurship to create public good through policy, regulation, or public initiatives (World Economic Forum, n.d.). In public health, collective activities can be seen as socially entrepreneurial actions.

Primary care has several responsibilities, including conducting collective activities that involve health education, group assistance/assessment, and social mobilization to promote, prevent, and educate the population on health (Ministério da Saúde, 2018). Examples of collective activities include walking groups, mothers' groups, family planning, quit-smoking groups, and neighborhood community gardens, as discussed in studies by Pierre and Clapis (2010), Souza *et al.* (2011), Costa *et al.* (2015), Cerri *et al.* (2017), and UFSC (2018). From the

perspective of social entrepreneurship in public health, these collective activities, which are promoted by HU, can benefit from the skills and methodologies commonly found in the field of applied social sciences.

Moreover, the absence of research addressing collective activities as intrapreneurial actions by public health managers is a significant gap in the literature. Intrapreneurial actions are often associated with private sector organizations, but there is growing recognition of the need for intrapreneurship within public sector organizations, including those within the public health network. Understanding how public health managers can engage in intrapreneurial activities through collective activities can provide valuable insights into how public health organizations can innovate and adapt to changing needs and challenges in their communities.

2.2 Entrepreneurship analysis instruments

To identify the entrepreneurial profile, or the entrepreneurial tendency of various social groups, such as students, professionals in a specific area, and partners of small, medium, and large companies, several instruments have been elaborated and made available in the literature. In Brazil, the application of instruments by Júnior and Souza (2005), and Santos (2008) stands out, and in the research by Carvalho (2016), Ferreira *et al.*, (2018), and Oliveira *et al.* (2021), the use of the GET questionnaire, developed by Caird (2013).

Júnior and Souza (2005) created an instrument based on the Theory of Planned Behavior to gauge entrepreneurial attitude in small business managers, encompassing factors like planning and innovation. However, they highlighted sample selection limitations, with participants linked to an entrepreneurship project, implying potential bias in perceptions.

In another research, Santos (2008) uses Cronbach's alpha statistical techniques and factor analysis to measure entrepreneurial potential (Alves & Bornia, 2011). The constructs used in the elaboration of the scale were achievement, planning, power, and intention to undertake, with field tests applied to students, university professors, and entrepreneurs. A fundamental factor in the construction of the scale was Cronbach's α test to verify the internal consistency of the items, having reached the level of "very good" (Santos, 2008). Among the

limitations identified in the research, the scale was tested in a few environments.

While several instruments have been tested in Brazil, none were administered to health sector workers as the General measure of Enterprising Tendency. The GET questionnaire was developed in 1988 by Johnson and Caird at the Durham University Business School in England (Caird, 1991, as cited in Carvalho *et al.*, 2016). Thus, the choice of the GET test was influenced by its established validation for research in Brazil (Gaião *et al.*, 2009), having been applied in the research reported below.

In Brazil, a survey of 116 nurses across a university hospital, a philanthropic hospital, and the Health Department identified the need for achievement and locus of control as the primary entrepreneurial characteristics among participants. Carvalho (2016) stressed the importance of fostering entrepreneurship in nursing. This would enable professionals to cultivate creative and transformative attitudes, acting with autonomy and determination, aiming for excellence in nursing and health care.

In a study on the entrepreneurial profile among nursing residents, Ferreira *et al.*, (2018) identified the commitment to entrepreneurship in residents by the “negative” concentration of trends such as autonomy, risk propensity, and creative tendency. Still, she suggests that the search for improvement of theoretical-practical knowledge added to the reduced autonomy in front of doctors and the overload of technical functions may be the cause of the result.

In a more recent study, Oliveira *et al.* (2021) administered the GET test to 208 nursing students, finding that the students scored lowest in traits like Need for autonomy, Calculated risk-taking, and Creative tendency. Notably, those with high or very high entrepreneurial tendencies had all taken entrepreneurship training courses. This underscores the potential of entrepreneurial education in enhancing the entrepreneurial capacity of health sector employees.

Despite the GET applications, there are still gaps to be filled, such as the application of the test in US managers and the consistency validation of the instrument., as in Santos (2008). For purposes of the relationship between GET results and activities considered socially entrepreneurial, this study has an implicit hypothesis, which is the existence of a relationship

between entrepreneurial tendency and collective actions promoted by HU.

3. Methodology

This is a primary, cross-sectional, exploratory, and quantitative research. Primary because data is collected directly from individuals, from primary sources, and cross-sectional, as it raises questions related to the presence of an association, without tracking the research object over time (Romanowski *et al.*, 2019).

Gerhardt and Silveira (2009) consider that exploratory research aims to provide greater familiarity with the problem, intending to make it more explicit. Finally, it is classified as quantitative. Quantitative research is centered on objectivity, resorting to mathematical language to describe the causes of a phenomenon, the relationships between variables, etc. (Fonseca, 2002).

The GET test measures enterprising tendency by measuring five entrepreneurial attributes as follows: Need for achievement; Need for autonomy; Creative tendency; Calculated risk-taking; and Locus of control. In a total of 54 statements with answers between “I tend to agree” (A) and “I tend to disagree” (D). The scores for each characteristic, as well as the calculation with the same ones to stipulate the Overall entrepreneurial tendency, are presented in their relative form on a score of 0 to 100 calculated using the table developed by Caird (2013).

In short, Oliveira *et al.* (2021) describe each characteristic measured:

Need for achievement: people who are highly motivated, energetic, and have a capacity for hard work. Need for autonomy: manifests itself with the desire to lead, train, and compete with projects. Creative tendency: the person is restless with ideas, and has a creative approach to solving problems through an innovative approach. Calculated risk-taking: the person is opportunistic and seeks information and knowledge to assess whether it is worth pursuing the opportunity that usually involves some risk. Locus of control: the person seeks internal control (ability and competence), indicating they make their own “luck” (Oliveira *et al.*, 2021, pp. 279-280).

Qualitative variables were presented in absolute frequency and relative frequency. The Shapiro-Wilk test was applied to verify whether the continuous variables presented a normal distribution and presented by mean, standard deviation, and median. The correlation between two quantitative or ordinal variables was

evaluated using the Spearman Rank-Order Correlation Coefficient. The comparative analysis of enterprising tendency with qualitative variables was performed using the non-parametric Mann-Whitney U-test. The SPSS statistical package for Windows (IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp) was used for data analysis. Statistic tests were two-sided, and levels of significance were 0.05.

Additionally, statistical analyses were performed to assess the reliability measure of the questionnaire. The evaluation of the measuring instruments used in a survey is critical since it confers relevance to it (Gaspar & Shimoya, 2017). Despite the revised study by Santos (2008) having applied Cronbach's Alpha coefficient reliability measure, this is indicated for collection instruments with scale options, such as the Likert scale (Bonett & Wright, 2015; Gaspar & Shimoya, 2017; Gliem & Gliem, 2003). Thus, for the GET test, the Kuder-Richardson technique (KR-20) was chosen.

The KR-20 formula calculates the reliability coefficient for dichotomous test results, gauging internal consistency (Nugroho *et al.*, 2019). Qualitatively, responses aren't deemed right or wrong as they reflect individual traits. However, since answers are scored for evaluating entrepreneurial characteristics, consistency analysis can be applied. The formula is presented below:

$$KR20 = \frac{k}{k-1} \left[1 - \left(\frac{\sum pq}{\sigma^2} \right) \right]$$

Where: k - total number of questions; p - the proportion of individuals who answered questions correctly; q - the proportion of individuals who answered questions incorrectly; σ^2 - variance of scores for all individuals who took the test. Ranging from 0.00-1.00, the results followed the stratification according to Schober, Boer, and Schwarte (2018): 0.00-0.10 - negative correlation; 0.10-0.39 - low correlation; 0.40-0.69 - moderate correlation; 0.70-0.89 - strong correlation; 0.90-1.00 - very strong correlation.

During December 2022, this study recruited 29 managers from HU, located in a municipality of Rio Grande do Sul, Brazil. Participants were contacted via email and telephone, and interviews were conducted in person. The study received approval from the ethics committees of both the University and the municipal health department. The research results are presented and discussed in the following section.

4. Results and discussion

Out of a pool of 29 managers, 22 (approximately 76%) consented to take part in the study. The questionnaire was conducted at the HU, in person, throughout the first semester of 2023, at a mutually convenient time that did not disrupt the managers' regular duties, following Resolution No. 580 passed by the National Health Council on March 22, 2018. The profile of respondents is shown in Table 1 below.

The results of the GET test are presented in Table 2, below, and discussed in the next sections.

The demographic analysis highlights a predominantly female workforce with a strong background in nursing, aligning with the broader professional landscape of healthcare administration. Furthermore, the managerial experience of respondents varies considerably, with a relatively short tenure in their current roles but a more extensive cumulative background in management. These results are further explored and discussed in greater depth in the following subsections.

4.1 Reliability analysis

The Kuder-Richardson formula (KR-20) evaluates test reliability and consistency. After its application to the test data, a KR-20 value of 0.75 was obtained, signifying strong internal consistency. This aligns with the strong correlation range (0.70-0.89) as outlined by Schober, Boer and Schwarte (2018).

The results of the KR-20 analysis suggest that the test is a reliable and internally consistent measure of the construct being assessed. However, it is important to note that KR-20 is only one method for assessing test reliability, and other methods such as test-retest reliability should also be considered in evaluating the quality of a test.

4.2 GET test results

Health unit managers scored a mean General Entrepreneurial Tendency of $\cong 63\%$ ($Md=66$), indicating they possess entrepreneurial traits but aren't strongly inclined towards entrepreneurship. Instead, they apply these skills within their organizations, aligning with the concept of intrapreneurs. This finding resonates with Berto and Junqueira (2009), who noted that modern managerial roles demand more than

Table 1. Respondent's profile.

Variables		Total	%
Gender	Masculine	5	22.7
	Feminine	17	77.3
Bachelor degree	Nursing	19	86.4
	Others	3	13.6

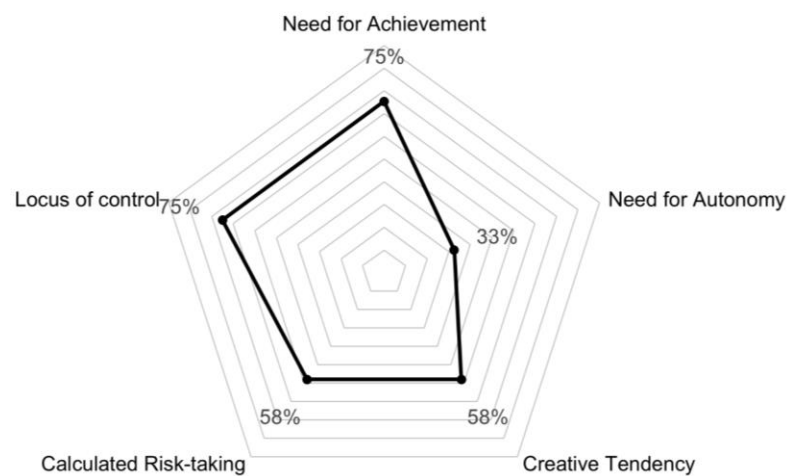
Variables in years	Mean	Standard Deviation (SD)	Median (Md)
Age	39.2	5.9	38
Work experience as manager of the current Health Unit	2.1	2.4	1.9
Total work experience as a manager	6.0	6.13	4.5

Source: elaborated by the authors (2025).

Table 2. Relative score of GET test results.

Entrepreneurial trait	Mean	Standard Deviation (SD)	Median (Md)
Overall GET Test score	62.6	10.5	66
Need for Achievement	75.3	14.5	75
Need for Autonomy	32.5	14.0	33
Creative Tendency	61.7	16.6	58
Calculated Risk-taking	56.1	19.2	58
Locus of control	71.9	14.3	75

Source: elaborated by the authors (2025).

Figure 1. Distribution of entrepreneurial characteristics (Median).

Source: elaborated by the authors (2025).

just professional expertise; an innovative, intrapreneurial profile is essential.

Figure 1 reveals that health facility managers score low in Need for Autonomy (Mean $\cong$ 33%, Md=33), Creative Tendency (Mean $\cong$ 62%, Md=58), and Calculated Risk-taking (Mean $\cong$ 56%, Md=58). These findings align with Carvalho (2016), Ferreira *et al.*, (2018), and Oliveira *et al.* (2021), suggesting that such traits are consistent among nurses, nursing students, and HU managers. Given that 86% of the participants have a Nursing degree, it reinforces prior

studies. The nursing professional embodies entrepreneurial traits, but there's room for fostering and enhancing these tendencies both academically and professionally (Oliveira *et al.*, 2021).

The high proportion of managers who exhibit a Need for Achievement (Mean $\cong$ 75%, Md=75) and Locus of Control (Mean $\cong$ 72%, Md=75) is noteworthy. These traits demonstrate the strong managerial skills of health facility managers as they consistently set and achieve goals while effectively directing resources and

people to achieve those goals. Carvalho (2016) identified these traits in nurses working at the Health Department, making it possible to draw a parallel with the results found here:

The first [characteristic of need for achievement] was identified only in nurses who worked at the Health Department. [...] these professionals develop disease prevention and treatment and health promotion activities, providing assistance to the community through primary health care, in the Health Units (HU), Family Strategy and Health Units (ESF), among others, instigating the participation of the population in the search for quality of care in different areas of the Unified Health System (SUS) (Carvalho *et al.*, 2016, p. 7).

The study by Kraemer, Duarte, and Kaiser (2011) indicates the importance of stability in employment and working conditions for the exercise of autonomy. Thus, due to the finding that all nurses responding to the questionnaire are employees of a hospital institution that took over the management of health units through temporary hiring, this fact may reflect the low tendency of managers to develop their autonomy in the position. Future studies are needed to verify the relationship between contractual insecurity and the need for autonomy under the intrapreneurship paradigm.

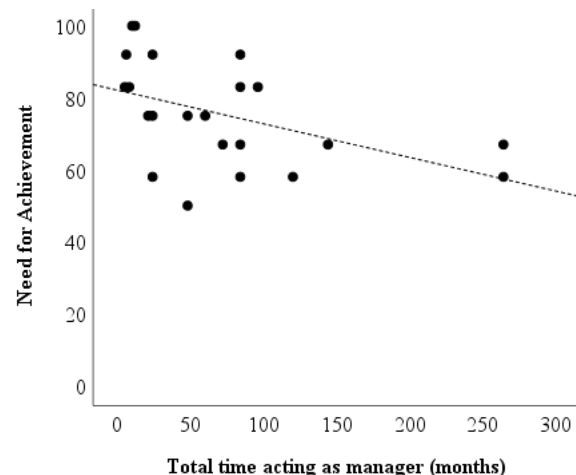
Figure 1 illustrates the entrepreneurial characteristics of HU managers, highlighting their strengths as intrapreneurs. The high need for achievement and position of control demonstrates their managerial skills and leadership qualities, which are crucial for the success of any health facility.

The high position of control highlights the importance of effective leadership and decision-making in the managerial role. Health unit managers must be able to make informed decisions that align with the facility's goals and vision while also considering the needs of various stakeholders. The strengths in Need for Achievement and Locus of Control underscore the capacity of managers for goal-setting, resource management, and leadership, reinforcing their role as effective intrapreneurs. However, the lower scores in Need for Autonomy, Creative Tendency, and Calculated Risk-taking suggest potential areas for further development, particularly in fostering greater independence and innovative thinking. Understanding these dynamics can contribute to the development of targeted strategies for enhancing entrepreneurial competencies within healthcare management.

4.3 GET and managerial traits

The findings of this analysis revealed that there was only one significant correlation, which was between the Need for Achievement score and the time working as a manager ($\rho = -0,541$; $p\text{-value} = 0,009$). The correlation coefficient was negative, indicating that a higher score on the Need for Achievement scale was correlated with a shorter-acting time as a manager (Figure 2).

Figure 2. Correlation between Need for Achievement (%) and total time acting as manager (in months)



Source: elaborated by the authors (2025).

This result may suggest that managers who have a higher Need for Achievement may be more likely to seek out new challenges and opportunities, leading them to move on to new positions or take on more challenging roles within a shorter period. On the other hand, managers who have a lower Need for Achievement may be more content with their current position and may be less likely to seek out new challenges, leading them to stay in their current role for a longer period.

Another possibility already identified in the literature is the association between a longer time in the position of nurse and a higher level of dissatisfaction. While Dias (2012) identified that with longer service, greater salary dissatisfaction, Ferreira (2011) indicates that with longer service, there are greater chances of turnover, absenteeism, complaints, and dissatisfaction. While the average working time of the managers responding to this research was 4 and a half years, Ferreira (2011) identified a greater tendency to turnover in nurses with more than 20 years of career.

Further studies are needed to assess the relationship between dissatisfaction and the Need for Achievement as an entrepreneurial trait. Despite a high global percentage of Need for Achievement, its statistically significant relationship with working time suggests that the motivation of nurses who have been on the job longer must be worked on to keep the Need for Achievement high. This correlation doesn't infer causation, requiring more research to understand the relationship's roots. However, the data offers insights into how personality ties with managerial experience, guiding leadership training and talent strategies. No statistical correlation was found with age, education, or gender.

4.4 GET test and entrepreneurial characteristics

Based on the results of the General Measure of Enterprising Tendency test, the overall score is an indicator of intrapreneurial tendency in individuals. The fact that it has a significant correlation with all variables except Locus of control is indicative of the complexity of enterprising behavior, which is influenced by multiple factors.

The Calculated Risk-taking appears to be variable with the strongest correlation to the overall score ($\rho = 0,797$; p -value $0,000$), indicating that individuals who are more willing to take calculated risks are likely to exhibit a greater tendency towards enterprising behavior. This could be attributed to the fact that entrepreneurship often involves taking risks, but successful entrepreneurs tend to take calculated risks rather than just jumping into risky ventures blindly.

On the other hand, the weakest significant correlation was observed between the overall score and Need for Achievement ($\rho = 0,438$; p -value $0,041$) and Need for Autonomy ($\rho = 0,438$; p -value $0,041$). This suggests that while these traits may be desirable for entrepreneurship, they are not necessarily the most critical factors in determining an individual's enterprising tendency. Interestingly, there was also a significant correlation observed between Creative tendency and calculated risk-taking ($\rho = 0,433$; p -value $0,044$), indicating that individuals who score higher on creativity are also more likely to take calculated risks.

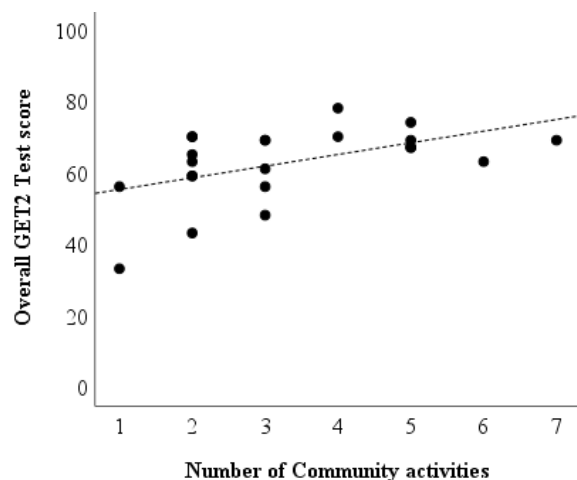
This could be attributed to the fact that creativity often demands unconventional thinking

and risk-taking. These results emphasize the need to evaluate various aspects in assessing enterprising tendencies, suggesting that calculated risk-taking is crucial in gauging entrepreneurial potential.

4.5 GET and collective activities

The findings of this study provide valuable insights into the relationship between entrepreneurial tendencies and collective activities carried out by Health Units within the community. The positive statistical correlation between the Overall GET test score and the number of collective activities ($\rho = 0,479$; p -value $0,024$) indicates that primary care managers who exhibit entrepreneurial tendencies are more likely to offer more activities to the community (Figure 3). This suggests that health unit managers could benefit from training and support to develop their entrepreneurial skills and encourage innovation in their work.

Figure 3. Correlation between Overall GET Test score (%) and community activities (n of actions performed).

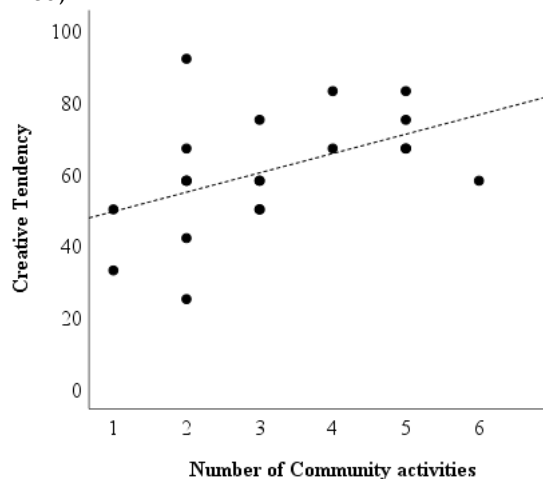


Source: elaborated by the authors (2025).

Furthermore, the positive statistical correlation between the Creative Tendency and the number of collective activities ($\rho = 0,562$; p -value $0,007$) indicates that more creative managers are more likely to engage in activities that benefit the community (Figure 4). This finding highlights the importance of promoting creativity in healthcare settings and encouraging managers to think outside the box when engaging with patients and the community.

However, the negative correlation between Need for Autonomy and activities with employees ($\rho = -0,557$; p -value $0,007$) suggests that the longer a manager is in their position, the

Figure 4. Correlation between Creative Tendency (%) and community activities (n of actions performed)



Source: elaborated by the authors (2025).

less likely they are to innovate in their work with employees. This finding highlights the need for ongoing training and support to help managers stay motivated and engaged in their work, especially over the long term.

Another finding suggests a significant difference in the need for autonomy between managers whose health units have permanent education activities and those who do not (p -value 0,044; Mean 25 vs 36.8; Md 25 vs 33, respectively). Managers who do not have access to permanent education activities are more likely to exhibit a greater need for autonomy. This may be because they are often required to make decisions independently and take on greater responsibility without the support of formal training programs or educational opportunities.

In contrast, managers who have access to permanent education activities may have more resources and support available to them, which can help to reduce their need for autonomy. These managers may be more likely to rely on guidance from their training programs and their colleagues, and to seek out feedback and input from others when making decisions.

Autonomy is crucial for successful entrepreneurs, yet it can be shaped by factors like education and training availability. Managers in health units lacking continuous education might show a heightened need for autonomy due to their independent operation and increased responsibilities.

Overall, the results of this study underscore the importance of entrepreneurial tendencies and creative thinking in healthcare settings and

suggest that ongoing support and training can help managers develop and maintain these important skills over time. The conclusions are presented below.

5. Conclusion

This research contributes to the achievement of some of the Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being), SDG 8 (Decent Work and Economic Growth), and SDG 9 (Industry, Innovation, and Infrastructure). By analyzing the entrepreneurial tendencies of Health Unit managers in primary care, the study underscores the role of intrapreneurship in enhancing healthcare delivery and fostering innovative solutions within the public health system.

The findings indicate that managers with stronger entrepreneurial characteristics are more likely to implement community-based health initiatives, thereby improving access to quality healthcare services and promoting well-being (SDG 3). Additionally, by exploring the professional development and managerial capacities of health professionals, this research aligns with SDG 8, as it highlights the importance of fostering an environment that supports innovation, autonomy, and job satisfaction in the healthcare sector. Lastly, the study's emphasis on the integration of entrepreneurial methodologies within public health structures resonates with SDG 9, demonstrating how innovative management approaches can enhance healthcare infrastructure and service delivery. Consequently, this research provides valuable insights into the intersection of entrepreneurship and public health, advocating for policies that encourage social intrapreneurship to drive sustainable healthcare improvements.

As managerial implications, the research findings suggest that the entrepreneurial tendency of HU managers can contribute to a greater number of activities carried out by the HU for the population's benefit. This means that managers of HUs in the primary care network of the Brazilian Unified Health System (SUS) can be seen as public social intrapreneurs.

Despite not being owners of the institution, they aim to create social welfare by developing new ways of delivering healthcare services. This study underscores their ability and their teams to devise group activities benefiting the community, fostering solutions that elevate local care quality.

Moreover, this research represents the first instance where an HU manager has been described in the literature, highlighting the significance of this study for future research in the field. The findings suggest that a greater focus on entrepreneurship and innovation in healthcare management can have positive outcomes for both healthcare providers and patients. By empowering managers to be social intrapreneurs, healthcare institutions can become more agile, responsive, and effective in meeting the needs of the population.

Policymakers and continuing education makers play a crucial role in ensuring that managers and staff at health units are equipped with the necessary skills and knowledge to navigate the complex and ever-evolving landscape of healthcare. By providing opportunities for creativity and collaboration, policymakers and continuing education makers can foster a culture of innovation and entrepreneurship within health units.

Managers and staff can collaboratively share insights, pinpoint challenges, and devise innovative healthcare solutions through group activities and brainstorming. By promoting entrepreneurial traits like risk-taking and creativity, policymakers and educators can enable them to think innovatively and discover novel healthcare delivery methods.

In entities like HU, most managerial roles are held by nurses. Thus, nursing programs should offer both clinical knowledge and entrepreneurial skills. A curriculum focused on entrepreneurship readies nurses for leadership and community initiatives. It's vital for public education policies to gear future healthcare leaders, particularly in public domains, with the tools to excel as public social intrapreneurs.

Investing in managers' and staff's professional growth allows policymakers and educators to foster a culture of ongoing learning in health

units. Through training, workshops, and other educational avenues, they can acquire new skills, stay current with industry advancements, remain motivated, and better address the changing needs of patients and communities.

While the findings of the study offer important insights into the role of managers as public social intrapreneurs in a particular context, it is important to acknowledge the limitations of the study. The low number of respondents limited to a specific context in the state of Rio Grande do Sul, Brazil, means that the results may not be generalizable to other contexts or populations.

To gain a more comprehensive understanding of the potentialities and challenges of public social intrapreneurship, future research should aim to expand the sample size and scope of the study. This may involve conducting interviews and surveys with managers from diverse backgrounds and regions, as well as exploring different sectors and organizations. Furthermore, future research should also consider examining the impact of various factors on the success of public social intrapreneurship initiatives. This could include exploring the role of organizational culture, leadership support, and institutional barriers in promoting or hindering the adoption and implementation of innovative solutions.

In summary, while the current study sheds light on the important role that managers can play as public social intrapreneurs, it is imperative that future research builds on these findings to provide a more nuanced and comprehensive understanding of this phenomenon. Such insights can help to inform policies and practices that foster innovation and social change within public and private organizations that can benefit themselves and others with greater levels of entrepreneurial tendency.

Referências

- Alt, E., & Geradts, T. (2019). Social Intrapreneurship: Unique Challenges and Opportunities for Future Research. *Academy of Management Proceedings*, 2019(1), 16643. <https://doi.org/10.5465/AMBPP.2019.188>
- Alves, L. R. R., & Bornia, A. C. (2011). Desenvolvimento de uma escala para medir o potencial empreendedor utilizando a Teoria da Resposta ao Item (TRI). *Gestão & Produção*, 18, 775-790. <https://doi.org/10.1590/S0104-530X2011000400007>
- Becker, E. R. B., Chahine, T., & Shegog, R. (2019). Public Health Entrepreneurship: A Novel Path for Training Future Public Health Professionals. *Frontiers in Public Health*, 7, 89. <https://doi.org/10.3389/fpubh.2019.00089>
- Berto, A. M., & Junqueira, L. A. P. (2009). Intra-empreendedorismo em organizações hospitalares ilusão ou realidade? *Revista Eletrônica de Gestão de Negócios*, 5(1), 94-114.
- Bonett, D. G., & Wright, T. A. (2015). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size

- planning. *Journal of Organizational Behavior*, 36(1), 3-15. <https://doi.org/10.1002/job.1960>
- Borst, R. A. J., Hoekstra, T., Muhandi, D., Jonker, I., & Kok, M. O. (2019). Reaching rural communities through 'Healthy Entrepreneurs': A cross-sectional exploration of community health entrepreneurship's role in sexual and reproductive health. *Health Policy and Planning*, 34(9), 676-683. <https://doi.org/10.1093/heapol/czz091>
- Caird, S. (2013). *General measure of Enterprising Tendency test*. www.get2test.net. <https://doi.org/10.13140/RG.2.1.4243.7520>
- Carvalho, D. P., Vaghetti, H. H., Dias, J. S., & Rocha, L. P. (2016). Características empreendedoras de enfermeiras: um estudo no sul do Brasil. *Revista Baiana de Enfermagem*, 30(4), 1-11. <https://doi.org/10.18471/rbe.v30i4.16803>
- Cerri, N., Arthur, A., Vieira, L., Silva, A., Baba, C., Dias, J., ... & Gomes, G. (2017). Programa de Caminhada em Unidades de Saúde da Família de um contexto de alta vulnerabilidade social. *Revista Brasileira de Atividade Física & Saúde*, 22(1), 100-105. <https://doi.org/10.12820/rbafs.v.22n1p%p>
- Chandra, Y., & Shang, L. (2021). Social entrepreneurship interventions in the HIV/AIDS sector: A social entrepreneurship-social work perspective. *International Social Work*, 64(1), 5-23. <https://doi.org/10.1177/0020872818807735>
- Chieh, N., & Andreassi, T. (2008). Intraempreendedorismo: Um Estudo de Caso sobre o Entendimento e a Aplicação do Termo em uma Instituição Bancária. *Revista Eletrônica de Ciência Administrativa*, 7(2), 1-12. <https://doi.org/10.5329/RECADM.20080702006>
- Costa, C. G. A., Garcia, M. T., Ribeiro, S. M., Salandini, M. F. D. S., & Bógus, C. M. (2015). Hortas comunitárias como atividade promotora de saúde: Uma experiência em Unidades Básicas de Saúde. *Ciência & Saúde Coletiva*, 20(10), 3099-3110. <https://doi.org/10.1590/1413-812320152010.00352015>
- Cruz, G. (2012). As Duas Faces do Empreendedorismo Social. *Revista Eletrônica do Mestrado Profissional em Administração da Universidade Potiguar (RAUnP)*, 5(1), 9-20. <https://doi.org/10.21714/raunp.v5i1.324>
- Dias, M. F. F. G. (2012). *A motivação dos enfermeiros em tempo de crise* [Universidade do Porto]. <https://repositorio-aberto.up.pt/bitstream/10216/66278/2/25432.pdf>
- D'Souza, N., & Scahill, S. (2020). The need to integrate in primary healthcare: Nurse identity constructions of pharmacists as entrepreneurs. *Journal of Health Organization and Management*, 34(8), 849-867. <https://doi.org/10.1108/JHOM-01-2020-0009>
- Ferreira, A. M. D., Rossaneis, M. A., Oliveira, J. L. C., Haddad, M. C. F. L., & Vannuchi, M. T. O. (2018). Perfil Empreendedor Entre Residentes de Enfermagem. *Revista Baiana de Enfermagem*, 32, <https://doi.org/10.18471/rbe.v32.27365>
- Ferreira, V. L. A. (2011). *A satisfação profissional dos enfermeiros em cuidados de saúde primários no distrito de Braga* [Universidade do Porto]. <https://repositorio-aberto.up.pt/bitstream/10216/56197/2/DissertaoMestradoVera.pdf>
- Fonseca, J. J. S. (2002). *Metodologia da pesquisa científica*. Universidade Estadual do Ceará. <http://www.ia.ufrj.br/ppgea/conteudo/conteudo-2012-1/1SF/Sandra/apostilaMetodologia.pdf>
- Fumagalli, L. A. (2008, October 22). *Intraempreendedorismo: Um estudo das relações entre cultura organizacional e a capacidade de empreender nas empresas*. XXV Simpósio de Gestão da Inovação Tecnológica, Brasília. https://www.researchgate.net/publication/311354092_Intraempreendedorismo_um_estudo_das_relacoes_entre_cultura_organizacional_e_a_capacidade_de_empreender_nas_empresas
- Gaião, B. F. S., Silva, T. A., Queiroz, C. T. A. P., Lira, W. S., Pedrosa, A. S., & Cândido, G. A. (2009). Diagnóstico da tendência empreendedora através o modelo de Durham: Um estudo de caso no setor educacional. *Qualitas Revista Eletrônica*, 8(3). <https://revista.uepb.edu.br/index.php/qualitas/article/view/639>
- Gaspar, I. A., & Shimoya, A. (2017). *Avaliação de confiabilidade de uma pesquisa utilizando o coeficiente alfa de Cronbach*. Simpósio de Engenharia de Produção, Catalão, Goiás, Brasil. https://files.cercomp.ufg.br/weby/up/1012/o/ISAAC_DE_ABREU_GASPAR_2_-_email.pdf
- Gerhardt, T. E., Silveira, D. T., Neis, I. A., Abreu, S. P., & Rodrigues, R. S. (2009). *Métodos de pesquisa*. Ed. da UFRGS. <https://lume.ufrgs.br/handle/10183/52806>
- Gliem, J. A., & Gliem, R. R. (2003). *Calculating, Interpreting, And Reporting Cronbach's Alpha Reliability Coefficient For Likert-Type Scales*. <https://hdl.handle.net/1805/344>
- Ha, L. M., Ling, E. L. A., Muniapan, B., & Gregory, M. L. (2011). General Enterprising Tendency (GET) and Recommendations to Boost Entrepreneurship Education in Sarawak: *International Journal of Asian Business and Information Management*, 2(1), 32-47. <https://doi.org/10.4018/jabim.2011010103>
- Heinze, K. L., Banaszak-Holl, J., & Babiak, K. (2016). Social Entrepreneurship in Communities: Examining the Collaborative Processes of Health Conversion Foundations. *Nonprofit Management and Leadership*, 26(3), 313-330. <https://doi.org/10.1002/nml.21198>
- Hidayat, S., Halid, J., Dirgantara, T., Kusuma, M. A., Utomo, H., Sudjud, R. W., Rejeki, I. S., Miharadi, S., Raharno, S., Rukanta, D., & Tjahjono, H. (2020). Lessons learned from rapid development of CPAP ventilator vent-i during COVID-19 pandemic in Indonesia. *Journal of Engineering and Technological Sciences*, 765-778.
- Ibáñez, M. J., Guerrero, M., Yáñez-Valdés, C., & Barros-Celume, S. (2022). Digital social entrepreneurship: The N-Helix response to stakeholders' COVID-19 needs. *The Journal of Technology Transfer*, 47(2), 556-579.

- <https://doi.org/10.1007/s10961-021-09855-4>
- Jacobson, P. D., Wasserman, J., Wu, H. W., & Lauer, J. R. (2015). Assessing Entrepreneurship in Governmental Public Health. *American Journal of Public Health*, 105(S2), S318-S322. <https://doi.org/10.2105/AJPH.2014.302388>
- Júnior, G. S. L., & Souza, E. C. L. (2005). Atitude empreendedora em proprietários-gerentes de pequenas empresas. construção de um instrumento de medida. *Revista Eletrônica de Administração*, 11(6), 1-22.
- Kahn, M. (2016). Mitigating South Africa's HIV Epidemic: The Interplay of Social Entrepreneurship and the Innovation System. *Minerva*, 54(2), 129-150. <https://doi.org/10.1007/s11024-016-9293-x>
- Kirkman, A., J. Wilkinson, & S. Scahill. (2018). Thinking About Health Care Differently: Nurse Practitioners in Primary Health Care as Social Entrepreneurs. *Journal of Primary Health Care*, 10 (4), 331- 337. <https://doi.org/10.1071/HC18053>
- Kraemer, F. Z., Duarte, M. D. L. C., & Kaiser, D. E. (2011). Autonomia e trabalho do enfermeiro. *Revista Gaúcha de Enfermagem*, 32(3), 487-494. <https://doi.org/10.1590/S1983-14472011000300008>
- Lana, B. M. H. (2010). *Intraempreendedorismo: Uma análise das percepções do gestor sobre o perfil de seus funcionários*. [Master's dissertation, FUMEC University]. FUMEC University. http://www.fumec.br/anexos/cursos/mestrado/dissertacoes/completa/bruno_maia_heringer.pdf
- Lima, E., Lopes, R., Nassif, V., & Silva, D. (2011). *Intenções e Atividades Empreendedoras dos Estudantes Universitários—Relatório do Estudo GUESSS Brasil 2011* [Dataset].
- Limeira, T. M. V. (2015). Empreendedorismo Social no Brasil: Estado da arte e desafios. *Inovação Em Cidadania Empresarial*. https://ice.org.br/wp-content/uploads/pdfs/Empreendedorismo_Social_no_Brasil_ICE_FGV.pdf
- Lomba, M. L. L. F., Toson, M., Weissheimer, A. S., Backes, M. T. S., Büscher, A., & Backes, D. S. (2018). Empreendedorismo social: Translação de saberes e práticas em estudantes de enfermagem no Brasil. *Revista de Enfermagem Referência*, IV(19), 107-115.
- Malavota, G. P., Cinegaglia, M. N., & Mello, S. C. R. P. (2019). Políticas Públicas no Âmbito do Empreendedorismo Feminino: Perspectivas de Empoderamento. *Revista da Seção Judiciária do Rio de Janeiro*, 23(45). <https://doi.org/10.30749/2177-8337.v23n45p161-173>
- Mendes, M. K., Hausmann, M. T., Pereira, M. C., & Jaeger, R. de B. (2023). Competências de gestores da atenção básica: Uma revisão integrativa. *Revista de Gestão e Secretariado*, 14(12), 20923-20948. <https://doi.org/10.7769/gesec.v14i12.3230>
- Mendes, M. K., Mastella, M., & Dewes, M. F. (2022). Empreendedorismo social na saúde pública: Reflexões para a atenção básica no Brasil. *Perspectivas em Gestão & Conhecimento*, 12(3), 186-208. <https://doi.org/10.22478/ufpb.2236-417X.2022v12n3.62766>
- Ministério da Saúde. (2018). *Sistema e-SUS Atenção Básica: Manual de Uso do Aplicativo e-SUS AB Atividade Coletiva*. E-SUS APS. <http://dab.saude.gov.br/portaldab/esus.php>
- Nugroho, A., Warnars, H. L. H. S., Heriyadi, Y., & Tanutama, L. (2019). Measure The Level Of Success In Using Google Drive with the Kuder Richardson (KR) Reliability Method. *2019 International Congress on Applied Information Technology (AIT)*, 1-7. <https://doi.org/10.1109/AIT49014.2019.9144915>
- Oliveira, S. X., Segundo, E. I. F., Leite, K. N. S., & Oliveira, M. B. (2021). Tendência empreendedora: perfil dos acadêmicos de enfermagem. *South American Journal of Basic Education, Technical and Technological*, 8(1), 276-291. <https://periodicos.ufac.br/index.php/SAJEBTT/article/view/4140>
- Pierre, L. A. D. S., & Clapis, M. J. (2010). Family Planning in a Family Health Unit. *Revista Latino-Americana de Enfermagem*, 18(6), 1161-1168. <https://doi.org/10.1590/S0104-11692010000600017>
- Ramani, S. V., SadreGhazi, S., & Gupta, S. (2017). Catalysing innovation for social impact: The role of social enterprises in the Indian sanitation sector. *Technological Forecasting and Social Change*, 121, 216-227. <https://doi.org/10.1016/j.techfore.2016.10.015>
- Romanowski, F. N. A., Castro, M. B., & Neris, N. W. (2019). *Manual de Tipos de Estudo* [Centro Universitário de Anápolis]. <http://repositorio.aee.edu.br/bitstream/aee/15586/1/MANUAL%20DE%20TIPOS%20DE%20ESTUDO.pdf>
- Sant'ana, L. (2017). *Empreendedorismo Social: Além dos interesses de reprodução do capital* [Universidade Federal de Juiz de Fora]. <https://www2.ufjf.br/graduacaocienciasociais/wp-content/uploads/sites/565/2010/11/TCC-Laudimar-SantAna.pdf>
- Santos, P. C. F. (2008). *Uma escala para identificar potencial empreendedor* [Universidade Federal de Santa Catarina]. <https://repositorio.ufsc.br/bitstream/handle/123456789/91191/247610.pdf>
- Sauer, A. B., Nilson, L. G., Dolny, L. L., & Maeyama, M. A. (2018). *Trabalho com Grupos na Atenção Básica à Saúde*. UFSC - Universidade Federal de Santa Catarina. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwi68N3jo4qCaxVxqZUCHROIaUQFnoECBUQAQ&url=https%3A%2F%2Fares.unasus.gov.br%2Ffacervo%2Fbitstream%2FARES%2F14865%2F1%2FApostila_Grupos%2520na%2520ABS_N%25C3%25BAcleo%2520Telessa%25C3%25BAde%2520SC%2520UFSC.pdf&usq=AOvVaw2fv4Ebx4CDGzhbr4ARDw0d&opi=89978449
- Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation Coefficients: Appropriate Use and Interpretation. *Anesthesia &*

- Analgesia*, 126(5), 1763-1768. <https://doi.org/10.1213/ANE.0000000000002864>
- Schumpeter, J. A. (1993). *Theorie der wirtschaftlichen Entwicklung: Eine Untersuchung über Unternehmergewinn, Kapital, Kredit, Zins und den Konjunkturzyklus* (7. Aufl., unveränd. Nachdr. der 1934 ersch. 4. Aufl). Duncker & Humblot.
- Silva, B. S. (2013). *Organização da porta de entrada do sistema de saúde do município de Claro dos Poções* [Universidade Federal de Minas Gerais]. <https://www.nescon.medicina.ufmg.br/biblioteca/imagem/4191.pdf>
- Souza, M. H. N., Gomes, T. N. C., Paz, E. P. A., Trindade, C. S., & Veras, R. C. C. (2011). Estratégia acolhimento mãe-bebê: Aspectos relacionados à clientela atendida em uma unidade básica de saúde do município do Rio de Janeiro. *Escola Anna Nery*, 15, 671-677. <https://doi.org/10.1590/S1414-81452011000400003>
- Trotte, L. A. C., Santos, J. L. G., Sarat, C. F. N., Mesquita, M. G. R., Stipp, M. A. C., Souza, P., ... & Lima, C. F. da M. (2021). Entrepreneurial tendency of Nursing students: A comparison between graduating beginners and undergraduate students. *Revista Latino-Americana de Enfermagem*, 29, e3402. <https://doi.org/10.1590/1518-8345.4397.3402>
- Venkataraman, S. (1997). The Distinctive Domain of Entrepreneurship Research. *Advances in Entrepreneurship, Firm Emergence and Growth*, 3.
- Vieira, S. F. A., Melatti, G. A., Negreiros, L. F. D., & Ferri, C. M. (2015). A visão dos estudantes universitários de administração sobre empreendedorismo: comparações entre o estudo guesss brasil 2011 com o levantamento realizado na universidade estadual de Londrina- PR. *Revista de Empreendedorismo e Gestão de Pequenas Empresas*, 3(3), 77-103. <https://doi.org/10.14211/regepe.v3i3.114>
- World Economic Forum. (n.d.). *Award Public Social Intrapreneurs*. Retrieved July 4, 2023, from <https://www.schwabfound.org/public-social-intrapreneur#:~:text=Public%20Social%20Intrapreneurs%20are%20leaders,policy%2C%20regulation%20or%20public%20initiatives>

Sobre os autores

Marcelo Kratz Mendes

Doutorando em Administração pela Universidade Federal do Rio Grande do Sul (UFRGS), na área de Inovação, Ciência e Tecnologia e Mestre pelo PPG Tecnologias da Informação e Gestão em Saúde, pela Universidade Federal de Ciências da Saúde de Porto Alegre (UFCSPA), já atuou como Gestor de Inovação e Tecnologia no Programa Inova RS, da Secretaria De Inovação, Ciência e Tecnologia do estado do Rio Grande do Sul. Pesquisador do Grupo de Pesquisa em Estratégia e Inovação (GPEI/UFRGS). Presta mentoria voluntária para Startups do Programa de Aceleração da Escola de Administração da UFRGS (AcelerEA). Especialização em Processos de Inovação pela FEEVALE em andamento. Bacharel em Gestão em Saúde pela UFCSPA. Sócio fundador e primeiro presidente da Brain Connect, Empresa Júnior de Gestão em Saúde, Experiência de estágio no setor Gestão de Inovação e Processos do Hospital Moinhos de Vento. Trabalhou como bolsista no Programa de Bolsas de Iniciação à Docência da UFCSPA, participou como voluntário no projeto Brothers In Arms e estagiou na empresa PrintUp 3D Engenharia e Manufatura Avançada.

ORCID: 0000-0002-1302-5069

Mauro Mastella

Bacharel em Administração de Empresas pela Universidade Federal do Rio Grande do Sul (2004). Mestre em Administração - área de concentração: Contabilidade e Finanças pelo Programa de Pós-Graduação em Administração da Universidade Federal do Rio Grande do Sul (2008). Doutor em Administração - área de concentração: Contabilidade e Finanças pelo Programa de Pós-Graduação em Administração da Universidade Federal do Rio Grande do Sul (2015). Diretor Administrativo Financeiro na FAPERGS (Fundação de Amparo à Pesquisa do Estado do Rio Grande do Sul). Professor Adjunto junto à Universidade Federal de Ciências da Saúde de Porto Alegre (UFCSPA). Pesquisador da área de finanças corporativas, mercado de capitais, governança corporativa, administração pública e gestão em saúde.

ORCID: 0000-0002-7163-9448

Mariana de Freitas Dewes

Professora adjunta da Universidade Federal de Ciências da Saúde de Porto Alegre desde 2015. Doutora, mestre e bacharel em Administração pela UFRGS - Universidade Federal do Rio Grande do Sul. Atualmente coordena o Curso de Bacharelado em Gestão em Saúde da UFCSPA. Atuou no Núcleo de Inovação Tecnológica e Empreendedorismo em Saúde da UFCSPA, como coordenadora de 2015 a 2017, e como Vice-coordenadora de 2017 a 2021. É docente permanente do Programa de Pós-Graduação em Tecnologia da Informação e Gestão em Saúde da UFCSPA e do Programa de Pós-Graduação em Propriedade Intelectual e Transferência de Tecnologia para a Inovação - PROFNIT, junto ao Instituto Federal do Rio Grande do Sul. Atuou como pesquisadora de Pós-doutorado na Secretaria de Desenvolvimento Tecnológico (SEDETEC) da Universidade Federal do Rio Grande do Sul, na temática de sistema de inovação institucional. Seus interesses de pesquisa incluem Interação Universidade - Empresa, Empreendedorismo, Gestão da Propriedade Intelectual, Transferência de Tecnologia, Inovação Tecnológica, Prospecção Tecnológica e Gestão Pública para a Inovação.

ORCID: 0000-0002-6576-1287