

The medical science liaison role in Spain: A nationwide survey

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Abstract:

Context and Aims: The Medical Science Liaison's (MSL's) value to the company has evolved into a more strategic role with a wide variety of responsibilities. We conducted an online survey of current MSLs nationwide to assess their profile, activity development, performance evaluation, and career development.

Subjects and Methods: A 37-item survey was hosted on SurveyMonkey© and accessible from December 2018 to February 2019. The survey was open to current MSLs from different pharmaceutical companies in Spain and included questions about the participant profile, activity development, performance evaluation, and career development.

Statistical Analysis Used: The results were expressed as valid percentages; to establish relationships between the answers to different questions, exclusion and comparison filters were used on the web platform.

Results: A total of 179 MSLs responded to the anonymous survey. Off-label information management (79%), relationships with key opinion leaders (76%), continuous medical training for HCPs (70%), involvement in clinical trials/investigator-initiated trials (68%), and elaboration of the National Strategy (67%) were mentioned as the top new competencies. Fifty-eight percent spend an average of 61%–80% of their time out in the field and 68% use remote interactions. Fifty-six percent did not agree that their current performance metrics are a reflection of their true value. Forty-five percent of the participants disagreed when asked if their activity is easily balanced with their personal lives.

Conclusions: Based on our findings, we believe that there is a need to consider the MSL's strategic priorities, to define metrics that accurately assess MSL performance, and to find ways to fully maximize their limited time.

Keywords: Health-care professionals, key opinion leader, medical science liaison, pharmaceutical industry, survey

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INTRODUCTION

Medical Science Liaisons (MSLs) emerged in pharmaceutical companies 50 years ago as a need to increase the scientific profile of their staff and differentiate it from commercial

activities.^[1] Since then, the MSL profile has continued to evolve based on the changes in regulations and compliance demands, the different market access strategies, and the development of increasingly specialized products focused on patients' needs.^[2]

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Currently, there is a broader scope of MSL activities as indicated in the MSL Society MSL guidelines (2018).^[3] Thus, MSLs play an important role in providing information to key opinion leaders (KOLs) to help them keep abreast of advances in science, but also examine in more depth issues such as health outcomes and the real-world effectiveness of drugs. In this way, the MSLs contribute valuable information to the company that emerges from discussions with the KOLs (insight gathering) and that can be used to improve medical plans, therefore influencing research and development decisions.

Another function of the MSL, whose importance grows day by day, is the management of studies whose sponsor is an investigator, a cooperative group, or a scientific society. Sometimes, the MSLs have an important contribution on this research by improving the recruitment based on their visits where they exchange scientific discussions about the study.^[4]

In 2008, a group of Spanish Medicine Association of the Pharmaceutical Industry (AMIFE) members conducted a survey that had been previously published, identifying the MSL roles and responsibilities of pharmaceutical companies in Spain, as well as aspects that should be improved.^[5] With the present survey, we want to know the current profile of MSLs in Spain, if new functions have been adopted and how their work is evaluated. With the results of this survey we have achieved two key objectives: clearly understand the current profile of MSL in the Spanish territory and provide updated data on their evolution, new features, and current challenges.

SUBJECTS AND METHODS

This is a cross-sectional nationwide survey designed from the perspective of AMIFE MSL Working Group,^[6] who are a team of highly experienced and currently active MSLs. They developed a 37-item survey only open to current MSLs from different pharmaceutical companies in Spain, including questions about the participant profile, activity development, performance evaluation, and career development. Respondents were invited to participate in the survey through a range of sources including announcements in the AMIFE LinkedIn group, the AMIFE blog, and personal direct LinkedIn contacts.

The final survey was hosted on SurveyMonkey© and was kept operative from December 2018 to February 2019. This platform records all survey responses and has the capability of analyzing data online in real time as responses are accumulating. Survey participants were informed that

participation was anonymous and no personal identifying information was requested, respecting the Organic Law 3/2018 of December 5 on the Protection of Personal Data and the Guarantee of Digital Rights.

The results were expressed as valid percentages; to establish relationships between the answers to different questions, exclusion and comparison filters were used on the web platform. Partial responses were included in this report, meaning that the N value in some cases will not add up to the total report N.

RESULTS

Participant profile

The first question in the survey asked if the participant was currently an MSL. Only those who responded as being currently in this role were allowed to continue with the survey. A total of 179 responses were received. The majority of the participants had a health science degree (87%), of which 6.7% are medical doctors (M. D.). More than half of the participants had a Master's Degree (57%) and 36% indicate that they hold a Ph. D. Only 11% had specific training through an MSL course. Regarding the prior experience, approximately one-third of the participants had been trainees in pharmaceutical companies (32%), another third doctorates (29%), and 37% had worked in the sales department. The majority of the participants had between 0 and 4 years of field experience as an MSL; specifically, 27% responded between 0 and 1 year and 42% between 2 and 4 years. Eighteen percent of the respondents had worked as an MSL between 5 and 7 years, 9% between 8 and 10 years, and only 4% had more than 10 years of experience. Most of the respondents work in companies with more than 250 employees (75%), whereas the rest of the participants work in medium-sized companies with 51–250 employees (21%) and only 4% in small companies (<51 employees). Regarding the type of company, a large majority of MSLs surveyed work for pharmaceutical companies (87%), followed by biotechnology companies (10%). Only two participants are MSLs in a contract research organization. Eighty percent responded that the MSL position has been present in their company for more than 4 years. The position was home-based for 91% of all respondents.

Approximately half of the participants indicated that their professional category or status was “equivalent to a sales representative” (53%), whereas the other half responded that it was “the same as a sales manager” (47%).

Performance development

The average time that was considered necessary to master the position of MSL was 2 years for 53% of participants, 1 year for 25%, and 3 years for 16%. The majority of the participants (58%) spend an average of 61%–80% of their time out in the field [Figure 1]. When asked what the ideal percentage of office time to be able to correctly perform the MSL role should be, the most frequent responses were 21%–40% (53%) and 41%–60% (35%) of the time.

More than half of the participants received continuous training by the medical department (53%), 29% were self-taught and as part of the working day, and 10% responded that they do not receive training. Only four participants indicated that they received training from an external provider.

Sixty-five percent of the participants stated that they perform remote interactions, although 13% indicated that they were not satisfactory. In the latter case, the reasons given are shown in Figure 2.

Fifty-two percent of the MSLs surveyed were involved in the elaboration of the medical plan, some 29% solely in its implementation, whereas the remaining 19% did not participate in its development. When planning and implementing the strategy, the main internal stakeholders are represented in Figure 3. When asked if they could perform their functions independently from the commercial team, the responses were as follows: always (33%), frequently (33%), sometimes (27%), and rarely (7%). Participants who interact with sales managers and sales representatives for planning and implementing the strategy were the ones that to a lesser extent perform the functions independently from the commercial team [Figure 3].

The majority of respondents actively participate in the support of clinical trials (68%) and in the development of investigator-initiated trials (IITs) (79%). Among the survey participants, the ratio of sales delegates per MSL was as follows: 1–2 (5%), 3–4 (23%), 5–8 (30%), 9–12 (16%), and >13 (21%). More than half of the participants state that they carry out visits with the market access team (57%). Forty-three percent of MSLs surveyed managed their own budget.

Performance evaluation

Practically, all of the participants (94%) fill out daily activity-based metrics. Of these, 59% employed a combination of quantitative and qualitative metrics. Only quantitative metrics were used by 29% and only qualitative metrics by 5% of the participants. Fifty-six percent of the MSLs surveyed did not agree that their current performance

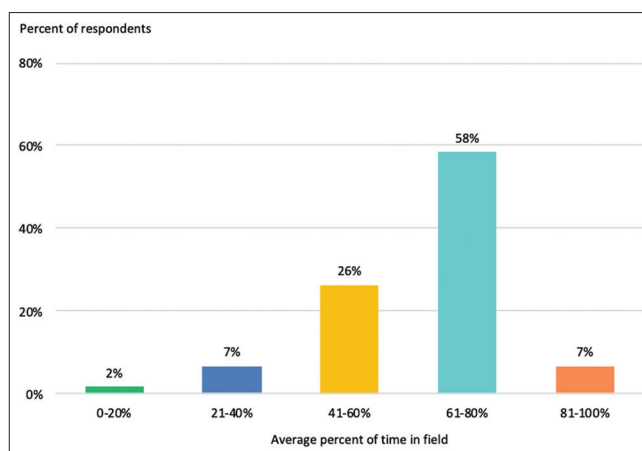


Figure 1: What is the average time you spend in the field?

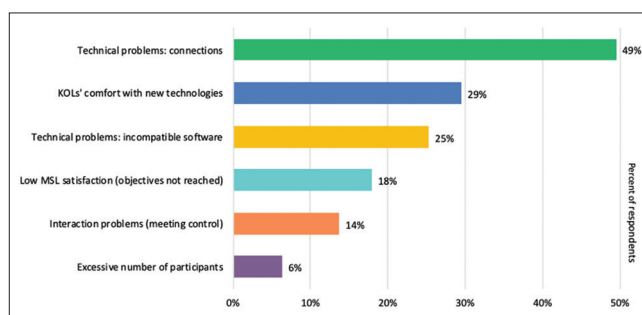


Figure 2: Survey question: If you have performed unsatisfactory remote interactions, what was the main reason? (Based on your experience, mark those that apply). Note: 24% of the survey respondents answered “Others”

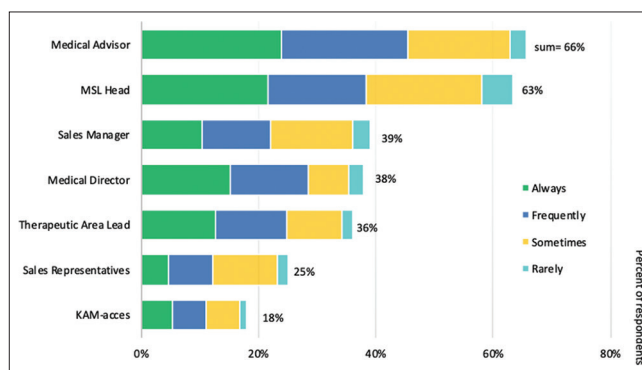


Figure 3: Survey question: Who are your main internal stakeholders when planning and implementing the strategy? (According to the level of agreement with the statement “you could perform your functions independently from the commercial team”). Note: 6% of the survey respondents answered “Others”

metrics are a reflection of their true value [Figure 4]. The clear majority (90%) of the participants believe that qualitative metrics better measure their work as an MSL.

Data discussions (65%) and clinical sessions (22%) were the most important MSL functions. Sixty-five percent of the respondents indicated that the most appealing

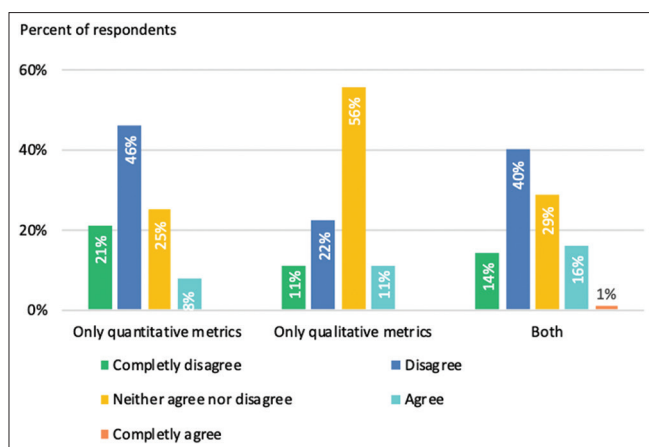


Figure 4: Survey question: Do you fill out any daily activity report (performance metrics)? (According to the level of agreement with the statement “current performance metrics fully reflect my role as a Medical Science Liaisons”)

aspect of their work was the professional development with a scientific basis, followed by interaction with KOLs (23%), organizational autonomy (11%), and salary (2%). Almost all the participants (94%) considered that the MSL has a relevant role in compliance issues.

Career development

When MSLs are asked about their new competencies in the near future, participants responded that: they will continue to manage off-label information (79%), they will maintain their relationships with KOLs (76%), they will continue to participate in medical training for healthcare professionals (70%), they will be involved in clinical trials and IIT (68%), they will take an active part in the elaboration of the company's strategic plans at the regional and national level (67%), they must have knowledge of pharmacoeconomics (54%), will assume a relevant role in internal training (54%), will be involved in budget management (43%) and in aspects related to compliance (38%).

Regarding the preferred time for working as MSL, 39% of the participants indicated that they would like to work as an MSL for between 6 and 10 years (including their years of experience), 33% from 1 to 5 years, and 15% from 11 to 15 years. If they were to change their position, 41% would prefer the position of medical advisor and 35% MSL head.

Forty-five percent disagreed that their activity easily reconciled with their personal life, 30% were neutral regarding this question, and 25% agreed. When asked about which measures would improve family-personal conciliation, 66% responded less time in the field, 65% compensatory days off, 32% more remote interactions, and 26% planning autonomy.

Finally, survey respondents reported which applications or software packages they used in their day-to-day lives as an MSL. This was an open-ended question in the survey and respondents report multiple applications for various functions including expense reports/travel management, track/identify clinical trial sites, literature search, presentation software applications, reference managers, note taking, and social networks.

DISCUSSION

Not only do the results of our survey help understand the current profile of the MSLs in Spain, but they also provide updated data on their evolution, their new functions, and the current challenges.

Today, MSLs have advanced scientific training and academic credentials generally consisting of a doctorate degree (Ph. D., PharmD., M. D.) in life sciences. Having a Ph. D is not always an essential requirement in Spain, whereas it is for the majority of MSL job applications in the United States. However, the knowledge gained from previous experience in the pharmaceutical industry is extremely valued for this position in Spain. In fact, when asked about participants' prior work experience to being MSL, more than half had already worked in pharmaceutical companies as trainees or sales representatives.

The results of our survey show that a higher percentage of participants receive training in comparison to the survey completed in 2008.^[5] Despite these positive data, a significant portion of the training is self-taught, which may imply a lack of educational programs within the company. The data gathered in the international MSL society survey show that more than half of participants were unsatisfied with the continuous training offered to them by their company as well as the external training or seminars designed to help their professional development.^[7] It is worth noting that the current trend toward developing more complex, specialized medicines leads to major training requirements for MSLs, for which reason companies must continue to invest in the scientific training of their MSLs. MSLs may also need additional training such as developing communication skills or better understanding patient experiences, which ensures field medical teams are up-to-date and can confidently engage in scientific discussions.^[2,8]

MSL teams are usually small and they must normally cover an extensive territory. Face-to-face meetings are the common option of MSLs when sharing scientific information and getting feedback from KOLs, but one

of the possible strategies to reduce the time MSLs must dedicate to the field is the use of digital technology. In this vein, 65% of our survey participants use remote interactions, although they were not satisfactory for 13%, especially due to technical issues. Pharmaceutical companies are increasingly adopting digital technology to allow for online meetings or to organize virtual events, and this should be an MSL's added value, without the obstacle of technical issues.

While traditional roles such as MSL interactions with stakeholders and scientific dissemination remain important, several emerging responsibilities are gaining increasing relevance.^[3] Today, MSL competencies are increasingly strategic, and this is reflected in our survey's results through the high percentage of MSLs who participate in the preparation and/or implementation of the medical plan, planning and execution of company-sponsored clinical trials, and support of IITs. Furthermore, over half of the participants manage their own budget. This leadership is being reflected in the fact that they can perform their functions independently from the commercial teams and contact with commercial managers is higher than with sales representatives, which indicates less ratios of interference and more strategic contacts with the commercial area. More research about this evolving strategic function (and wisely covering their regional area) instead of only being "executor" of national medical plans, should be interesting.

MSLs play a pivotal role in maintaining a close relationship with KOLs and other physicians. The idea is that, together, all insights gathered from the field by the MSL are employed in early clinical development and used to ensure that brand strategy maximizes the medical benefits for patients. The assessment of MSLs' activity often includes quantitative criteria based on their relationships with KOLs such as the number of interactions that MSLs have with their KOLs since they are not allowed to be incentivized on sales.^[2,9] However, the ideas or reflections that arise from these discussions or meetings are more important. Such an insight, while difficult to measure quantitatively, has the potential to substantially impact clinical research and development efforts. For this reason, companies frequently use qualitative metrics as well to assess the activity of their MSLs.^[6,9,10] In our study, only 13% agreed that the current reporting system is a good indicator of their work; possibly owed to the fact, 90% believe that qualitative metrics better measure their work as an MSL. These data are in line with a 2010 US survey, where qualitative metrics were valued more than quantitative metrics^[11] and with a 2015 survey describing MSL perceptions of their performance

metrics, which reported that only a fifth of respondents were satisfied with how MSL performance was measured in their organizations.^[7] All these data indicate that a suitable system to measure the function and assess the value of the MSL is still necessary.

One of the new points included in our survey and which has not been studied previously is the assessment of the work-life balance. Almost half of the participants disagreed when asked if their activity is easily balanced with their personal lives. It should also be noted that 30% of the participants indicated that one of the two measures that would most improve the balance would be a greater amount of remote interactions, which once again highlights the need to facilitate digital technology in MSL teams.

CONCLUSIONS

As a conclusion to this article and based on the findings, we believe that the MSL role should be considered as a strategic figure within companies. For this, we think that it is necessary to redefine its metrics trying to maintain the quantitative part but opening the way to qualitative ones and thus achieve greater precision of its performance, equalize its interlocution at the level of Sales Managers (and not Sales Representatives), take responsibility for their own budget and finally find new ways to improve their work-life balance.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Morgan DK, Domann DE, Collins GE, Massey KL, Moss RJ. History and evolution of field-based medical programs. *Drug Inf J* 2000;34:1049-542.
2. Groebel R. Exploring the changing role of modern medical science liaisons; 2015. Available from: <https://www.veeva.com/wp-content/uploads/2015/09/AR-Changing-Role-of-Medical-FINAL-8.10.15.pdf>. [Last accessed on 2019 Mar 22].
3. Medical Science Liaison Society (2018) Medical Science Liaison guidelines. Available from: <https://www.themsls.org/msl-guidelines/>. [Last accessed on 2020 Mar 08].
4. Suvorov N, Karaseva V, Stukalina E, Sanay E, Petrakovskaya V, Bulatov V. Medical science liaisons in real-world evidence studies: Experience of AstraZeneca Russia. *Ther Innov Regul Sci*

- 2018;52:57-61.
5. Chicharro A, Losada E, Marin H, Corrales R, Lorient C, Gómez MJ, *et al.* A survey of medical scientific liaisons in the pharmaceutical industry in Spain. *J Med Mark* 2017;16:4-9.
 6. AMIFE. Asociación de Medicina de la Industria Farmacéutica (Medicine Association of the Pharmaceutical Industry). Available from: <http://amife.com>. [Last accessed on 2019 Mar 22].
 7. Dyer S. Medical Science Liaison Society. Global Survey of Medical Science Liaison Job Satisfaction; 2016. Available from: <http://themsljournal.com/article/global-survey-medical-science-liaison-job-satisfaction/>. [Last accessed on 2019 Mar 22].
 8. Medical Science Liaison Society. The MSL KPI Disconnect. Global Survey of MSL KPIs and Metrics; 2015. Available from: <https://www.themsls.org/results-global-medical-science-liaison-kpi-metrics-survey>. [Last accessed on 2019 Mar 22].
 9. McDonald O. Metrics and Performance Measurement within the MSL Role. Medical Science Liaison Association; 2012. Available from: [https://msla.org.uk/?option=com_content&view=article &id=350%3Ametrics-and-performance-measurement-within-the-msl-role&catid=58%3Aresources&Itemid=140](https://msla.org.uk/?option=com_content&view=article&id=350%3Ametrics-and-performance-measurement-within-the-msl-role&catid=58%3Aresources&Itemid=140). [Last accessed on 2019 Mar 22].
 10. Medical Science Liaison Institute: Medical Science Liaison Metrics Research (Full Report); 2009. Available from: <http://www.mslinstitute.com/medical-science-liaison-library/medical-science-liaison-metrics-research-full-report#.XbbIxCO-8nU>. [Last accessed on 2019 Mar 22].
 11. Ahmad I, Okamoto T, Alexander J, Hermes-DeSantis E, Winter-Sperry R. Rutgers. Institute for Pharmaceutical Industry Fellowships. Measuring MSL Effectiveness: Perception vs. Reality; 2018. Available from: <https://pharmafellows.rutgers.edu/wp-content/uploads/2018/09/2010-measuringmsleffectivenessperceptionvs.reality.pdf>. [Last accessed on 2019 Mar 22].