

TRANSFORMING HEALTHCARE EFFICIENCY: THE ROLE OF TRAINING IN ENHANCING INSURANCE POLICY MANAGEMENT AND PATIENT SATISFACTION

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ABSTRACT

OBJECTIVE:

To improve healthcare workers' knowledge of mandatory health insurance and increase the accuracy and speed of insurance claims processing.

DESIGN:

An online survey was conducted to assess healthcare workers' experiences and knowledge regarding health insurance policies, followed by targeted training sessions.

SETTING:

The study involved 92 institutions under Administration of Regional Medical Divisions (TABIB) governance across Azerbaijan, with training sessions held in Baku, Gabala, and Lankaran.

MAIN OUTCOME MEASURES:

Knowledge improvement of healthcare staff, reduction in insurance claim processing times, and enhancement of patient satisfaction regarding insurance-related communication.

RESULTS:

A total of 686 survey responses identified significant training needs. Consequently, 168 healthcare workers (85% women, 15% men) from 47 regional hospitals participated in 2-day workshops designed to address these needs. Post-training assessments revealed that 80% of participants showed substantial improvement in understanding insurance policies and procedures. Insurance claim processing time decreased by 25%, from 10 to 7.5 minutes, and patient satisfaction with insurance-related communication increased by 30%. The training directly benefited the participants, and indirectly, over 10,000 patients experienced enhanced service quality and reduced waiting times.

CONCLUSIONS:

The structured training program significantly enhanced healthcare workers' knowledge and confidence in managing insurance policies. The observed improvements in efficiency and patient satisfaction indicate the program's long-term positive impact on healthcare service quality.

KEYWORDS

health insurance, health services accessibility, insurance claim review, patient satisfaction, quality improvement, training programs.

INTRODUCTION

Mandatory health insurance in the Republic of Azerbaijan was implemented as a pilot project in the cities of Mingachevir and Yevlakh, as well as the Aghdash district, between 2017 and 2019. Within this project, healthcare services covered by insurance were provided to the population of these areas by the Administration of Regional Medical Divisions (TABIB), based on a basic package that included 1,829 medical services. From January 1, 2020, the scope of health insurance services expanded, and as of April 1, 2021, mandatory health insurance covered the entire country [1, 2].

With the expansion of mandatory health insurance implementation, the variety of medical services provided to the population has also increased. The knowledge level of employees working in hospital registration and insurance departments plays a crucial role in delivering new diagnostic methods and medical services to the public [3, 4, 5].

Health workers' knowledge of insurance policies in regional hospitals not only enhances the quantity and quality of services covered by health insurance but also improves patient satisfaction and access to care. Regular training in insurance processes equips staff, particularly those in registration departments, to efficiently guide patients, increasing the accuracy and speed of insurance claims. This, in turn, reduces financial strain on healthcare facilities and strengthens collaboration with insurers [6, 7, 8].

The insufficient knowledge of health insurance policies among healthcare workers hinders efficient service delivery, leads to errors in insurance claims processing, and reduces patient satisfaction due to miscommunication and delays in care.

Aim of the study: to examine how training impacts patient satisfaction and the efficiency of insurance processes.

Main objectives of the study:

- a) Increase healthcare workers' knowledge of mandatory health insurance.
- b) Improve the accuracy and speed of insurance claims processing.

METHODS

We developed an online Likert-scale survey to evaluate the experiences and knowledge of medical workers regarding health insurance policies. Before distribution, the survey was reviewed and validated by a panel of five experts from TABIB's Health Insurance Department and Training and Research Department to ensure content validity, relevance, and clarity of the items. This survey included five questions, each designed to assess confidence and adequacy of training in handling health insurance-related responsibilities. Participants responded to each question using a five-point Likert scale with options: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree. The survey questions are as follows:

1. I feel confident in my understanding of health insurance policies and procedures.
2. I believe I receive adequate training to stay updated on healthcare service coverage and procedures.
3. I am confident in explaining insurance coverage and service limits to patients accurately and clearly.
4. I feel adequately trained to handle the registration and management of services for citizens with privileged benefits.
5. I have opportunities to provide feedback on training programs and identify areas where additional training is needed.

The survey was distributed via email to all medical institutions under TABIB governance, targeting healthcare staff in key patient-facing and administrative roles. We collected 686 responses from 92 institutions, with the largest group of respondents being from the Patient Services Department (362 personnel), followed by medical admissions staff (173), front desk registrars (129), and heads of registration departments (22).

SURVEY ANALYSIS AND TRAINING PROGRAM DEVELOPMENT:

The survey results highlighted varying knowledge levels across roles and pinpointed specific training needs. Based on these findings, a team of seven qualified instructors was assembled from TABIB's Training and Research, Health Insurance, International Relations, and Public Relations and Communication Departments to develop and lead a targeted training program.

The training materials were designed to address the gaps identified through the survey and included both pre- and post-training assessments. These materials covered key areas such as policy understanding, patient communication, and procedures for managing services for privileged citizens.

The training focused on interpersonal communication, procedural knowledge, and policy understanding rather than on digital tool proficiency.

TRAINING IMPLEMENTATION:

Training sessions were conducted with 168 healthcare workers (85% women, 15% men) from 47 regional hospitals. Each session was structured as a two-day workshop, held in Baku, Gabala, and Lankaran, providing hands-on practice and case-based learning tailored to the specific roles of participants.

DATA ANALYSIS:

To assess the effectiveness of the training, pre- and post-test results were analyzed using IBM SPSS Statistics 22. We applied the non-parametric Chi-Square test to identify significant differences in knowledge and confidence levels before and after the training, with significance set at $p < 0.05$.

RESULTS

We carefully analyzed the responses to the survey questions, which assessed participants' perceptions related to health insurance policies. A total of 686 responses were collected, with no missing data.

For the first question, the majority of respondents, 350 (51.0%), selected Disagree (2). The next highest category was Strongly Disagree (1), with 298 responses (43.4%). A smaller number of respondents, 22 (3.2%), chose Neutral (3), and only 7 respondents (1.0%) selected Strongly Agree (5). No responses were recorded for Agree (4). The cumulative percentage shows that 95.8% of respondents indicated some level of disagreement (either Strongly Disagree or Disagree), while the remaining responses fell within the Neutral or Strongly Agree categories. This distribution highlights that most participants expressed a lack of confidence or agreement with the topic assessed by this question, suggesting a potential need for further training or information.

For the second question, which measured participants' agreement levels regarding a statement on health insurance policies, disagree (2) received the highest number of responses, with 355 participants (51.7%), indicating a significant level of disagreement. Strongly Disagree (1) was selected by 286 participants (41.7%), showing a considerable portion of respondents expressing strong disagreement. A smaller percentage of respondents, 19 (2.8%), chose Neutral (3), while Agree (4) was selected by 22 participants (3.2%), and only 4 participants (0.6%) selected Strongly Agree (5). The cumulative percentage indicates that 93.4% of participants expressed some level of disagreement, with the remaining 6.6% of responses split among Neutral, Agree, and Strongly Agree. This distribution reveals a predominant trend of disagreement, suggesting a general lack of confidence or satisfaction with the aspect of health insurance policies assessed by this question.

For the third question, which assessed participants' responses regarding another aspect of health insurance policies, disagree (2) received the highest number of responses, with 313 participants (45.6%), indicating a significant level of disagreement. Strongly Disagree (1) was selected by 266 participants (38.8%), with a smaller number of respondents, 21 (3.1%), choosing Neutral (3). Agree (4) was selected by 86 participants (12.5%). The cumulative percentage shows that

84.4% of participants indicated some level of disagreement, while the remaining 15.6% of responses were divided between Neutral and Agree. This distribution reflects a predominant trend of disagreement, which may suggest general dissatisfaction or lack of confidence in the topic assessed.

For the fourth question, the frequency distribution of responses was as follows: Disagree (2) received the highest number of responses, with 307 participants (44.8%), indicating a substantial level of disagreement. Strongly Disagree (1) was chosen by 236 participants (34.4%), showing a considerable portion of respondents expressing strong disagreement. A smaller portion, 41 participants (6.0%), selected Neutral (3), while Agree (4) was chosen by 91 participants (13.3%), and only 11 participants (1.6%) selected Strongly Agree (5). Analysis shows that 79.2% of participants indicated some level of disagreement, with the remaining 20.8% of responses divided among Neutral, Agree, and Strongly Agree. This distribution indicates a dominant trend of disagreement, suggesting that most respondents are not satisfied with or confident in the aspect assessed by this question.

For the fifth question, which assessed participants' agreement levels with a specific statement on health insurance policies, agree (4) received the highest number of responses, with 306 participants (44.6%), indicating a substantial level of agreement. Strongly Agree (5) was chosen by 276 participants (40.2%), showing a significant portion of respondents expressing strong agreement. A smaller number, 51 participants (7.4%), selected Disagree (2), while Strongly Disagree (1) was chosen by 42 participants (6.1%), and only 11 participants (1.6%) selected Neutral (3). The cumulative percentage shows that 59.8% of participants expressed some level of agreement (either Agree or Strongly Agree), while 15.2% of participants expressed disagreement, and 1.6% remained Neutral. This distribution indicates a majority of respondents expressing positive agreement, suggesting general satisfaction or confidence in the aspect being evaluated by this question.

Based on survey recommendations, 168 healthcare professionals across 47 regions were successfully trained. Post-training assessments showed that 80% of participants demonstrated substantial improvement in understanding insurance policies and procedures, contributing to better insurance handling within institutions. Average insurance claim processing time decreased by 25%, from 10 to 7.5 minutes. Surveys revealed a 30% increase in patient satisfaction regarding insurance-related communication. Improved staff knowledge and communication led to a 20% rise in patients utilizing health insurance.

DISCUSSION

STATEMENT OF PRINCIPAL FINDINGS:

The survey results highlight a prevalent trend of disagreement among healthcare workers regarding their knowledge and confidence in health insurance policies. Most respondents expressed low confidence in understanding and communicating insurance policies effectively, underscoring significant gaps in training. Post-training assessments revealed a 25% reduction in claim processing times and a 30% increase in patient satisfaction related to insurance communication. These findings validate the importance of targeted training in improving healthcare service efficiency and patient outcomes.

STRENGTHS AND WEAKNESSES OF THE STUDY IN RELATION TO OTHER STUDIES:

Our study aligns with existing research demonstrating that healthcare staff's understanding of insurance policies is pivotal to patient satisfaction and quality of care. For example, Shure et al. [9] emphasized the role of claims management training in reducing processing times and improving patient satisfaction, which parallels our findings. Similarly, Duc Thanh et al. [10] showed that well-informed staff enhance patient experience through efficient insurance management.

STRENGTHS OF OUR STUDY INCLUDE:

Targeted Training Program: Training tailored to identified needs, benefiting 168 healthcare workers and enhancing their handling of insurance-related tasks.

Broad Impact on Patient Services: Over 10,000 patients indirectly benefited through improved service delivery and reduced waiting times, showcasing the broader implications of such interventions.

Rigorous Monitoring and Evaluation: Pre- and post-training surveys allowed for robust assessment, demonstrating measurable improvements in staff knowledge, confidence, and patient satisfaction.

LIMITATIONS:

Limited Sample Size: Training was conducted with 168 healthcare workers, representing only a portion of the TABIB workforce, potentially limiting the generalizability of the findings.

Short-term Evaluation: Post-training assessments focused on immediate outcomes, leaving the long-term impacts on knowledge retention and patient satisfaction unexplored.

Self-reported Data: Reliance on self-reported survey responses introduces potential biases, as participants may have over- or under-reported confidence and knowledge levels.

MEANING OF THE STUDY:

This study underscores the critical role of targeted training programs in addressing knowledge gaps among healthcare staff, particularly in regions implementing mandatory health insurance systems. For health and aged care service managers, the findings suggest that investing in structured training programs can lead to significant improvements in service delivery efficiency, patient satisfaction, and organizational performance. Policy makers should consider integrating continuous training initiatives into national health insurance rollouts to ensure sustained impact and adaptation to evolving healthcare demands.

UNANSWERED QUESTIONS AND FUTURE RESEARCH:

Future research should explore the long-term impacts of such training programs on knowledge retention, patient satisfaction, and healthcare system efficiency. Additionally, examining the scalability of this initiative to other regions and healthcare sectors would provide valuable insights. Investigating the specific challenges faced by various healthcare roles in insurance processes could also inform the development of more customized training solutions.

CONCLUSION

This study demonstrates that targeted training in health insurance policies can substantially improve service efficiency and patient satisfaction. By increasing healthcare workers' understanding and confidence in managing insurance claims, we observed a 25% reduction in claim processing times and a 30% increase in patient satisfaction with insurance-related communication. The training also led to a 20% rise in patient utilization of health insurance, indicating that better-informed staff enhance patient trust and engagement with healthcare services. Moving forward, expanding this training initiative to more regions could significantly improve the overall quality of healthcare service in Azerbaijan. The results underscore the importance of regular training programs to adapt to evolving healthcare needs and insurance policies, benefiting both healthcare providers and patients.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE:

Ethics approval for this study was not required as it involved anonymized survey responses and training outcome evaluations conducted within a professional capacity, without patient interaction or access to confidential patient data. This exemption is in accordance with the internal review policy of the Administration of Regional Medical Divisions (TABIB), which classifies such staff training and service improvement studies as quality assurance activities not subject to formal ethics committee review. Participation in the survey and training was voluntary, and informed consent was implied through voluntary completion of the survey and attendance at training sessions.

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CONFLICT OF INTEREST STATEMENT:

The authors declare no conflicts of interest.

AVAILABILITY OF DATA:

Data supporting the findings of this study are available from the corresponding author, Emil Iskandarov, upon reasonable request.

AUTHORS' CONTRIBUTIONS:

Conceptualization EA, training program supervision EA, manuscript writing EA.; Survey implementation AK, data collection AK, data analysis AK, interpretation AK.

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