

## SUPERVISION FOR MEDICAL SPECIALISTS (RESULTS OF SURVEY)

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**Abstract.** Recent developments of burn-out of medical employees in hospitals has required to pay attention to supervision to avoid burn-out of medical personnel. Purpose of the study is to suggest several aspects of supervision organisation for medical employees' base on survey of medical employees. Principal objectives: analyse views of medical employees on satisfaction level on received supervision service; on evaluations of respondents on what extent it was useful for respective person as well as level on how the respondent was feeling during the supervision realisation process. The evaluations were made by respondents in scale 1–10, analysis of results was realised by use of descriptive statistics, by cross-tabulations, by testing statistical hypotheses using  $t$  – test and analysis of variance (ANOVA). Survey results has indicated challenges to be taken into account in future.

**Keywords:** supervision, medical personnel, burn-out, assistance, confidentiality.

**JEL Classification:** I18; J81; J88.

### 1. Introduction

Recent historical happenings (pandemia COVID-19, war in Ukraine, etc.) made life much more stressful for people and for medical personnel to find new and innovative solutions to prevent burnout. Medical personnel are influenced by those very serious events as medical personnel are those who need to assist in health support for inhabitants of the country from one side and they are also human beings who are influenced by pandemia COVID-19, war, public stress and nervousness of the public. Medical personnel have to be also protected by those special circumstances created by pandemia, war in Ukraine and public stress for future of countries and growing importance for recognition of medical personnel importance and necessity for individual activities of inhabitants. Therefore in many countries there are realised special activities to support medical personnel and avoid burnout including supervision. In Latvia there are realised several activities to prevent burnout including supervision and special association is created to concentrate specialists, develop best possible solutions and share the experience (The Latvian Association of Supervisors) where several activities are supported also for medical personnel. Aim of the current paper is to

prepare recommendations for more efficient realisation of supervision for medical personnel based on analysis of findings in other countries and survey of medical personnel in Latvia. Tasks of research are to analyse findings reflected in scientific publications in other countries on efficient and innovative ways in prevention of burnout of medical personnel in comparison to other specialities; analyse views of medical personnel on results of supervision activities for medical personnel in Latvia. Research methods used in current research: scientific publications and previous research results analysis discussed in international peer reviewed scientific publications, survey of medical personnel in realisation of supervision and obtained data analysis using indicators of descriptive statistics and hypotheses testing using  $t$ -test to evaluate statistical significance of differences in evaluations by gender.

### 2. Research methodology

Research is based on scientific publications and previous realised research results world-wide on use of supervision to avoid burn-out in different fields but especially in medicine as limitations related to pandemia COVID-19 has indicated that there are significant problems of burn-out for medical personnel. After analysis of scientific

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findings reflected in scientific publications it was decided to conduct survey of medical personnel in Latvia on their experience in application of supervision and evaluations of medical personnel on their feelings about the supervision efficiency. For survey development there were used findings of different aspects related to burn-out for medical personnel with aim to concentrate on the main aspects from one side and keep questionnaire not too long as medical personnel need to be respected on their limited time to answer the survey questions. For possibility to conduct survey of medical personnel in Republic of Latvia it was made special application to Medical Ethics Committee of Republic of Latvia with guaranties about obtained data confidentiality and usage of data only in an updated version for research results. After the survey questionnaire preparation, detailed examination and consultations with experts about survey questions and evaluation of different aspects by the view of medical personnel it was developed questionnaire and conducted pilot survey with representatives from the target group – medical personnel where participated 14 persons to evaluate the prepared questionnaire evaluating – are all question formulations understandable and related to the topic; maybe something is missing; maybe something is not needed and have to be excluded as it is very important to keep the questionnaire as short as possible but also as informative as possible. Besides that it was made steps for fixing time needed for target group participants to answer on questions included in the questionnaire. After realisation of pilot survey it was prepared the final version of the questionnaire and placed it on survey platform QuestionPro which allows to send the link for participants included in the sample, for respondents it is easy to answer the survey questions and for researchers it is possible to export survey data to different data analysis programs including SPSS where different statistical analysis methods can be used. For data collection it was used survey platform QuestionPro and for data analysis it was used software SPSS. All participants in the survey have received personal invitation to participate in the survey with information about the feeling of respecting their confidentiality of respondent views.

### 3. Theoretical findings

#### 3.1. Supervisions to prevent burnout of medical personnel

Researchers world-wide perform research to find best possible ways to prevent burnout of personnel and medical personnel is on special interest (Tziner et al., 2015; Richards et al., 2021) as medical personnel are very important part for society health and well-being as they need to keep attention on other part of society health and well-being. Creative and innovative approaches (Brooks et al., 2010; Bruria et al., 2022) applied in avoiding burnout for medical personnel are on big interest for academic researchers and practitioners to introduce new and useful approaches in everyday life. Researchers as well

as policy developers and decision makers on different levels are looking on innovative ways to support medical personnel in avoiding burnout (Kwak et al., 2010) where attention is paid on many different and important aspects (AlKudsi et al., 2022) making several approaches and solutions for different medical personnel (Alakhras et al., 2022; Bérastégui et al., 2020; Mospan & Olenik, 2018; Whittington et al., 2021; Kang et al., 2022; Garau et al., 2022) where several innovative and interesting solutions are suggested based on serious research results with application of many research methods finding different aspect influence on burnout.

#### 3.2. Several countries approach

Solutions are innovative and extensive to realise serious and efficient contributions for realised activities (Bui et al., 2020; Mehta et al., 2022; Rodionova-Girsa & Batraga, 2019; Jeong & Shin, 2023) to avoid burnout for medical personnel including supervision where important findings could be used in praxis and decision making. Several countries are using several approaches (Yarad et al., 2023; Hu et al., 2024; Alotaibi et al., 2019) and their experience and good practice could be useful for other countries. Extensive research activities in Australia and New Zealand (Yarad et al., 2023) have brought to interesting and useful research results could be used in practice for practical applications also in other countries. Researchers from Austria have analysed practical findings and theoretical issues with significant influence (Gatterer et al., 2024). Researchers from China (Hu et al., 2024) have developed several innovative approaches to lower the burnout – their experience and recommendations could be useful also in other countries.

#### 3.3. Several specialities approach

Different specialists in medicine have several approaches and experience to avoid burnout of the personnel (Alotaibi et al., 2019) introducing several innovative and creative approaches (Bursch et al., 2018; Batraga et al., 2019; Khan et al., 2023) and finding original solutions in correspondence with technologies development (Roussel, 2022) indicating original approaches and solutions and suggestion introduce several activities to improve the work culture. Interventions (Stewart et al., 2024; Braslina et al., 2021) have specific approaches to realise successful support for medical staff on different levels and different specialities. Researchers have paid special attention to several aspects important to avoid burnout especially for medical personnel. Research results and data indicate that special attention is provided to emergency staff (Perlmutter et al., 2023) suggesting innovative toolkit for avoiding burnout as often they face burnout because of their speciality demanding big concentration and big responsibility for human lives and health and their often needs to work in extraordinary conditions. COVID-19 lessons requested to find extraordinary approaches and solutions (Li et al., 2023) with experience

gained and specific tools developed. Researchers have pointed out that there is correlation between burnout and satisfaction with work (Alakhras et al., 2022; Yarad et al., 2023) having several alike conclusions in different parts of the world (Hu et al., 2024) on different continents where several useful and practically applicable suggestions were developed to avoid burnout and keep personnel in medicine. Different medical specialities have different level of burnout of medical personnel (Bruria et al., 2022) and there are suggested several activities to reduce the burnout. Researchers have indicated close relationship between burnout and emotional intelligence (Richards et al., 2021) and have developed reasonable research-based suggestions for practical applications of burnout for medical personnel.

### 3.4. Importance and influence of technologies and digitalisation

Special recent activities and possibilities are introduced based on new information technologies and digitalisation as well as personal communication in all fields including medicine (Khan et al., 2023; Roussel, 2022; Rodionova-Girsa & Batraga, 2019; Bursch et al., 2018) which have big and important influence on medical personnel well-being and readiness for professional work in medicine and contribute in saving lives and contributing to keep health and well-being for other persons and stressing personal self-evaluations for possible problem indications. Several innovative approaches are applied and analysed (Zhang et al., 2024; Zheng et al., 2024; Su et al., 2023). Artificial intelligence is used also in supervision activities realisation for medical personnel and even more innovative approaches are searched by practitioners and researchers which could have more practical applications in future supervision service offerings and realisation for medical personnel.

## 4. Empirical research results

Scientific publication analysis has indicated that surveys are applied often to realise most efficient activities in avoiding medical personnel burnout by several supervision activities and their efficiency and possible adjustments. Respondents were asked to make their evaluations in scale 1–10, where 1 – do not agree; 10 – fully agree). The survey was placed in very efficient survey platform QuestionPro where respondents can easy answer the questions and provide their evaluations. The results of survey are possible to export in SPSS – data analysis software with wonderful and powerful possibilities to perform deep data analysis using descriptive statistics, cross-tabulations, testing different statistical hypotheses with using different tests: t – test, chi-square test, analysis of variance – ANOVA and other and possibilities in applying different multivariate statistical analysis methods. Results of survey on satisfaction level of supervision service received and on what extent the supervision service

have met the needs of respective medical personnel described by main indicators of descriptive statistics are reflected in Table 1.

Table 1. Main statistical indicators of descriptive statistics of evaluations on satisfaction level of received supervision service (source: authors calculations based on Anna Angena prepared and realised survey)

Statistical indicators		How satisfied are you with the supervision service you received?	To what extent did the supervision service meet your needs?
N	Valid	92	88
	Missing	0	4
Mean		7.46	7.24
Standard Error of Mean		0.188	0.201
Median		8	8
Mode		8	8
Standard Deviation		1,806	1,888
Range		8	8
Minimum		2	2
Maximum		10	10

Data indicate that the evaluations on satisfaction level of received supervision service are very high with most of evaluations 8 (mode), half of respondents gave 8 or less and half of respondents gave evaluation 8 or more (characterised by median), arithmetic means of the evaluations were 7,46 for respondent evaluations on quality of supervision services received and arithmetic mean of the evaluations was 7,24 on the extent supervision have met needs of respondents. The respondents had also lower evaluations as there are evaluations also 2 (but the share of respondents giving this evaluation was very small). No respondents have given the lowest evaluations for both aspects analysed here. Bigger variability of the evaluations were for evaluations on extent the supervision have met the respondents needs. Data of indicators of variability indicate that bigger variety of evaluations are on responses on evaluations about the extent the supervision has met respective person's needs. Distribution of evaluations on how satisfied were participants with the service they received are included in Table 2.

Data indicate that the evaluations of participants in supervision service on satisfaction about service level of supervision on 5 or less were given only for 12% of respondents who gave their evaluations on supervision service. It means that respondents were quite satisfied with respective issue. No respondents gave the lowest evaluation and only 2,2% gave evaluation 2, but more than 30% gave the highest evaluations (9 or 10). Distribution of evaluations on what extent supervision service have met participants needs on the service they received are included in Table 3.

Table 2. Distribution of evaluations on “How satisfied are you with the supervision service you received?” (source: authors calculations based on Anna Angena prepared and realised survey)

Evaluations	Frequency	Percent	Valid Percent	Cumulative Percent
2	2	2.2	2.2	2.2
3	3	3.3	3.3	5.4
4	3	3.3	3.3	8.7
5	3	3.3	3.3	12.0
6	8	8.7	8.7	20.7
7	21	22.8	22.8	43.5
8	24	26.1	26.1	69.6
9	21	22.8	22.8	92.4
10	7	7.6	7.6	100.0
Total	92	100.0	100.0	

Table 3. Distribution of evaluations on “To what extent did the supervision service meet your needs?” (Source: authors calculations based on Anna Angena prepared and realised survey)

Evaluations	Frequency	Percent	Valid Percent	Cumulative Percent
2	2	2.2	2.3	2.3
3	3	3.3	3.4	5.7
4	4	4.3	4.5	10.2
5	6	6.5	6.8	17.0
6	8	8.7	9.1	26.1
7	20	21.7	22.7	48.9
8	22	23.9	25.0	73.9
9	16	17.4	18.2	92.0
10	7	7.6	8.0	100.0
Total	88	95.7	100.0	
Missing	4	4.3		
Total	92	100.0		

Data included in the Table 3 indicate that the evaluations on 5 or less were only for 17% of respondents who provided this evaluation. Most of respondents gave high evaluations for level the supervision service meeting the expectations of medical personnel. Often in scientific publications it is noted that views of male and female persons often differ what have checked also authors of this paper.

Data included in Table 4 indicate that the evaluations by male and female persons are different with bigger variability in male evaluations for supervision service received.

Results of correlation analysis is included in table 5 on relationship among the evaluations on satisfaction level on supervision services received and evaluations on what extent supervision service have met needs of participants.

Table 4. Main statistical indicators of descriptive statistics of evaluations on received supervision service by gender (Source: authors calculations based on Anna Angena prepared and realised survey)

Question	Sex	N	Mean	Standard Deviation	Standard Error of Mean
How satisfied are you with the supervision service you received?	Female	74	7.47	1.815	0.211
	Male	11	7.73	1.794	0.541
To what extent did the supervision service meet your needs?	Female	71	7.35	1.845	0.219
	Male	11	6.82	2.183	0.658

Table 5. Main statistical indicators of correlation analysis of evaluations on how satisfied were participants with the supervision service received and extent level on meeting needs of the participants (Source: authors calculations based on Anna Angena prepared and realised survey)

Indicators of correlation analysis		How satisfied are you with the supervision service you received?	To what extent did the supervision service meet your needs?
How satisfied are you with the supervision service you received?	Pearson Correlation	1	0.773**
	Sig. (2-tailed)		0.000
	N	92	88
To what extent did the supervision service meet your needs?	Pearson Correlation	0.773**	1
	Sig. (2-tailed)	0.000	
	N	88	88

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Correlation analysis indicate that there is statistically significant correlation with significance level 0,01. Often it is mentioned that people are often afraid about the confidentiality of their health issues including activities their activities to keep and improve health and well-being. Therefore, there were asked questions with invitation to evaluate how comfortable were feeling participants during the supervision service and how safe were feeling participants on confidentiality as it could influence the efficiency of supervision services received– main statistical indicators of descriptive statistics on evaluation results are included in Table 6.

Participants have evaluated that in most of cases they have felt comfortable discussing sensitive professional issues with the supervisor – arithmetic mean of the evaluations was 7,39 with most often given evaluation 8 (mode) and half of participants have evaluated as

8 or less and half of participants have evaluated as 8 or more, no participants have given the lowest evaluation which is characterised by median. It means that supervision service was provided on high level and participants have felt them comfortable as it is extremely important to accept this supervision service and get utmost from these activities.

Table 6. Main statistical indicators of descriptive statistics of evaluations on feelings about confidentiality of received supervision service (source: authors calculations based on Anna Angena prepared and realised survey)

Statistical indicators		How comfortable did you feel discussing sensitive professional issues with your supervisor?	How safe did you feel in the supervision sessions regarding the supervisor's confidentiality?
N	Valid	85	85
	Missing	7	7
Mean		7.39	7.33
Standard Error of Mean		0.206	0.211
Median		8	8
Mode		8	7
Standard Deviation		1.897	1.942
Range		8	8
Minimum		2	2
Maximum		10	10

It is important to evaluate how comfortable participants were feeling discussing sensitive professional issues with the supervisor as this can influence the efficiency of supervision services received – results of evaluations by participants are included in Table 7.

Table 7. Distribution of evaluations on “How comfortable did you feel discussing sensitive professional issues with your supervisor?” (Source: authors calculations based on Anna Angena prepared and realised survey)

Evaluations	Frequency	Percent	Valid Percent	Cumulative Percent
2	1	1.1	1.2	1.2
3	3	3.3	3.5	4.7
4	8	8.7	9.4	14.1
5	3	3.3	3.5	17.6
6	3	3.3	3.5	21.2
7	13	14.1	15.3	36.5
8	32	34.8	37.6	74.1
9	15	16.3	17.6	91.8
10	7	7.6	8.2	100.0
Total	85	92.4	100.0	
Missing	7	7.6		
Total	92	100.0		

Data of Table 7 indicate that medical personnel who have received supervision service in Latvia have different evaluations where almost the whole evaluation scale is used of their feelings of feeling comfortable when discussing sensitive issues with the supervisor but most of respondents gave high evaluations meaning that the supervision service was provided well to keep recipients of the supervision service comfortable with 34,8% of respondents giving evaluation 8 which is very good.

Table 8. Distribution of evaluations on “How safe did you feel in the supervision sessions regarding the supervisor's confidentiality?” (Source: authors calculations based on Anna Angena prepared and realised survey)

Evaluations	Frequency	Percent	Valid Percent	Cumulative Percent
2	2	2.2	2.4	2.4
3	4	4.3	4.7	7.1
4	3	3.3	3.5	10.6
5	3	3.3	3.5	14.1
6	8	8.7	9.4	23.5
7	22	23.9	25.9	49.4
8	19	20.7	22.4	71.8
9	14	15.2	16.5	88.2
10	10	10.9	11.8	100.0
Total	85	92.4	100.0	
Missing	7	7.6		
Total	92	100.0		

Data of Table 8 indicate that medical personnel who have received supervision service in Latvia have different evaluations where almost the whole evaluation scale is used of their feelings of feeling safe on the confidentiality when discussing sensitive issues with the supervisor but most of respondents gave high evaluations meaning that the supervision service was provided well to keep recipients of the supervision service comfortable with 23,9% of respondents giving evaluation 7 which is good but still can be done more to make sure about the confidentiality of supervision service activities.

## 5. Conclusions

Academic publishers have paid a lot of attention in their research in activities taken and provided to avoid burnout of medical personnel where one of the most successful activities are supervision service.

For different fields in medicine the burnout of medical personnel are different and there could be made different contributions for avoiding burnout.

Supervision is one of efficient services to avoid burnout for medical personnel what is successfully realised in many countries and also in Latvia.

Satisfaction of medical personnel with received supervision service in Latvia was high and evaluations differed for male and female persons.

Evaluations of respondents have confirmed that in general all who have used supervision services have reached their expectations and have evaluated that service was on high level.

Evaluations of respondents have confirmed that in general all who have used supervision services have felt comfortable and secure about the confidentiality of their participation in the supervision.

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## Contribution

Anna Angena – preparation of survey, organisation of the survey data collection by *QuestionPro*, theoretical analysis, data analysis.

Biruta Sloka – scientific supervision, theoretical findings analysis, data analysis.

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