

## RULES AND GUIDELINES FOR ABSTRACTS OF MANUSCRIPTS REPORTING ORIGINAL RESEARCH \*

An abstract is one of key sections of a research article. The need for a brief and qualitative description of the article's content is due to a number of reasons. In some way, the abstract can be regarded as the visiting card of the study, as on its basis academic journal editors decide on the appropriateness of further reviewing of the research article. Most readers confine themselves to reading the abstract after its publication (by estimation, up to 95%). In this regard, it can be argued that the significance of the abstract will only grow in case of unceasing rise in the number of world-wide publication of research articles. The need for abstract structuring is also due to the advantages of ordered information search in the electronic databases. It is not ruled out that the availability of the structured abstract makes the article more "visible" and may contribute to its subsequent citation. It should be also mentioned that structured abstracts contrary to the ordinary ones are more informative and readable. Perhaps, they can be memorized easily [[Hartley](#)].

### Structured Abstract

It is an obligatory element of the article containing the results of the experimental, quasi experimental study, or the one based on the systematic analysis and generalization of previously obtained empirical data. The structured abstract should include five obligatory sections reflecting the chronological order of the study: **Background/Rationale, Objective, Methods, Results and Conclusion**.

**BACKGROUND OF THE RESEARCH** is a short (1-3 sentences) description of the problem serving as the immediate cause of the study. The characteristics of the problems may include its *scale*, indirect *effects* and/or existing *gaps in knowledge*.

### Examples.

- Over the past decades the number of consumed alcohol beverages in Russia remains extremely high. The results of preventive programs aimed at promoting a healthy lifestyle show a positive effect. However, the long-term advantages of such interventions in the context of child population have not been studied yet.
- The lack of vitamins in the children diet is a widespread phenomenon. It is believed that this state causes a high risk of respiratory infections due to the developing immunodeficiency.
- The continuous recurrent course of rheumatic diseases can cause social disintegration of children, particularly due to the lack of schooling.

**THE OBJECTIVE OF THE RESEARCH** is a section that *must* contain a description of the *main* (primary, key) purpose of the study and the research question that has to be answered in terms of the study. The description of the purpose should be extremely specific without comparison of "everything with everyone".

### Examples.

- THE PURPOSE OF THE RESEARCH: to analyze the influence of the regional program aimed at healthy behavior shaping of pupils for their further social achievements.
- THE PURPOSE OF THE RESEARCH: to study the influence of Y, Z and V vitamins on the level of interleukin X-00 applied in the process of treatment of children with polyvitaminic insufficiency and frequent respiratory infections.
- THE PURPOSE OF THE RESEARCH: to determine the effectiveness and safety of early (hospital) inclusion of children in a modified online training program using remote access technologies.

**METHODS** is a section of the abstract that *must* contain a short information: 1) on the objects of the study (health, patients, data), 2) on the availability of the comparable group, 3) on the criteria for inclusion in comparable groups, 4) on the availability and characteristics of intervention, 5) on the venue of the studies, 6) and its duration, 7) on the findings (evaluation parameters of the research result corresponding to its main purpose) with 8) the description of the methods of their evaluation. The need for mentioning of the used statistical programs and statistical criteria in the text will be determined by the editorial board individually

### Examples.

- **METHODS:** the research involved pupils of the 9th-11th forms studying at school located in N. region of M. krai during pilot project period aimed at healthy behavior shaping of adolescents (1998-1999). The questionnaires dealing with the issues of social success of respondents (employment status, the amount of wages, family status, children) were sent by post (personal addresses were provided by school administrations). The comparable group included senior pupils studying at the same period in the neighbouring I. region of O. area. The healthy behavior shaping of adolescents included: ... (*description of the intervention*).
- **METHODS:** the research involved children of 7-10 years registered as polyclinic patients due to frequent respiratory infections. The provision of food ration with vitamins was evaluated using tabular method with regard to the questionnaire data. Polyvitaminic insufficiency was observed at a low level (below recommendations) of consumption of  $\geq 3$  vitamins with food. The children were prescribed the vitamin complex with the medicine given to their parents immediately for the entire duration of the study (30 days). By including the medicine in the research and after completion of its taking, blood sampling was conducted to determine both plasma concentration of Y, Z and V vitamins and the serum level of interleukin X-00. Three months later after completion of taking the medicine parents mentioned that their children suffered from some cases of acute respiratory infections. The period of the study: October-April, 2013.
- **METHODS:** by agreement with parents, the research involved children of 7-13 years, directed to the hospital with a relapse of juvenile arthritis. The comparable group consisted of children directed to the hospital due to the same reason a year previously. The comparability of groups was achieved by selection of pairs of children having the same sex, age ( $\pm 1$  year) and severity of the disease. After

rapid relief of acute inflammatory disease symptoms the children of the main group got an opportunity to continue participating in the modified online training program using Skype technology. After discharge from the hospital the effectiveness of the training program was determined on the children progress basis (the average grade in Russian, mathematics and literature) within next three months of continuous learning in usual conditions. The progress of children belonging to the control group was determined retrospectively on the basis of the research results.

**RESULTS** is a section that *must* contain a short description of the objects of the research (the number of those included in the study and those who completed it, the most significant characteristics of participants) and the evaluation of the research findings related to its purpose. The presentation of the research results is allowed in limited number of subgroups (not more than 2-3) formed, for example, on the basis of sex, age and significant characteristics of the disease. If the data on undesirable actions dealing with medical intervention is available, they should be mentioned immediately. The results of the statistical analysis (*r* value) must be submitted to within three decimal digits. When analyzing the multicriterion relationships (the easiest option is one dependent variable and multiple independent), the presentation of the results of the multivariate analysis is required.

**Example.**

- **RESULTS:** during the pilot project period 978 children studied in the 9<sup>th</sup>-11<sup>th</sup> forms at school of N. region. The questionnaires were sent to 903 addresses. 214 responses were received. Only 204 questionnaires were validated. The survey results of 311 pupils studying at schools of the neighbourhood area (out of 1103 senior pupils with the available personal address) were used as control results. It was established that in 11 years (median) the trainees participating in the regional program aimed at healthy behavior shaping,... (*accurate results of the main research points: the number of employees, the level of their wages, the family status with the results of the statistical hypothesis testing*). Adjusted for the original characteristics (the level of well-being, the average progress), the results of the research showed that the program participants in X,X times (95% confidence interval...) more often/rarely... The differences in values of other social success criteria were not observed.

**CONCLUSION** is a brief (1-2-3 sentences) generalization of the main findings of the research related to its main (primary) purpose. Authors should avoid excessive generalizations and balance the evaluation of both positive and negative effects of the intervention.

**Example.**

- **CONCLUSION:** the systematic healthy behavior shaping of adolescents was accompanied by ... that can be taken into account when ...

The abstract of the research article containing the results of the randomized study should be prepared with regard to the guidelines of the CONSORT Group and include the following sections:

- DESIGN of the research
- METHODS
- participants of the research
- description of the intervention
- purpose or hypothesis of the research
- findings
- description of randomization process
- description of concealment process (if any)
- RESULTS
- indication of the number of randomized
- indication of the number of participants whose data are included in the analysis
- analysis of findings related to the primary point of the research
- analysis of undesirable effects
- CONCLUSION
- Research ID (for example, when registering on [clinicaltrials.com](http://clinicaltrials.com))
- Source of financing

The abstract of the research article containing the results of the systematic study should be prepared with regard to the guidelines of the PRISMA Group (to analyze randomized studies) and include the following sections:

- OBJECTIVE of the research
- METHODS
- criteria for inclusion of studies
- sources of information
- bias methods
- RESULTS

- description of relevant studies
- generalization of their results
- description of the effect with the sensitivity analysis
- DISCUSSION
- analysis of the strengths and limitations of the obtained evidence (consistency, accuracy, generalizability, risk of bias)
- interpretation of the findings
- Source of funding
- Research ID (for example, when registering on clinicaltrials.com)

***Sources for the preparation of the given code:***

1. Hopewell S, Clarke M, Moher D, et al. CONSORT for reporting randomized controlled trials in journal and conference abstracts: explanation and elaboration. *PLoS Med.* 2008;5(1):e20. doi: 10.1371/journal.pmed.0050020.
2. Beller EM, Glasziou PP, Altman DG, et al. PRISMA for abstracts: reporting systematic reviews in journal and conference abstracts. *PLoS Med.* 2013;10(4):e1001419. doi:10.1371/journal.pmed.1001419.

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