

COPING STRATEGIES AND PSYCHOLOGICAL READINESS OF STUDENTS FOR PROFESSIONAL WORK

Pichurin V.V.

Dnipropetrovsk National University of Railway Transport

Annotation. *Purpose:* to find out the current trends regarding the use of students coping strategies. Objectives of the study were to identify the coping strategies that are used by students in the cognitive, emotional and behavioral areas, as well as the identification of adaptive, non-adaptive and adaptive choices regarding their coping behavior. *Material:* the study involved 600 students (300 – boys, 300 – girls). Age of study participants was 17 – 19 years. *Results:* the level of students using a number of cognitive, emotional and behavioral strategies has been identified according to the method of E.Heim. The tendencies for the use of students of adaptive, maladaptive and adaptive coping relatively fundamental idea lies behind. *Conclusions:* the most common coping strategy for students in the cognitive sphere is "self-preservation" in the emotional sphere is "optimism" in the behavioral field is "a distraction." The use of adaptive strategies of students quantify exceeds the use of maladaptive and relatively adaptive (except for behavioral adaptive strategies of boys and girls).

Key words: coping strategies, adaptive, non-adaptive, adaptive with respect, students.

Introduction

High requirements to professional level of modern specialists, complexity of his training and high cost of it; in number of cases extreme character of working conditions, require appropriate psychological and psycho-physical fitness. In its structure the so-called "coping-strategies" take important place. It is connected with the fact that efficiency of professional functioning in difficult (and more over in extreme) conditions to large extent depend on formation of specialists' strategies of coping-behavior. Coping strategies are especially important for specialists, who, in their professional functioning, endure stresses or increased emotional loads.

In psychology coping strategy is understood as rational, reasonable, adaptive behavior, oriented on removal or psychological overcoming of critical situation. It is considered that copying depends on human personality, actual situation, conditions of social support. It manifests in behavior, in emotional and cognitive spheres of personality. It is noted that psychological significance of coping implies effective adaptation of a person to situational requirements, permitting to cope with situation, to avoid it or to adapt to it and, thus, to damp its negative, stress influence.

Such academic discipline as physical education can also make a contribution into students' training for effective coping-behavior. One of tasks, which, in the author's opinion, can be effectively solved within the frames of psychological and psycho-physical training at physical culture lessons [8, 9], is preparation of students for effective usage of coping strategies in future professional activity. Significance of this task is also witnessed by the fact that psychologists (for example D.O. Leontyev) include coping strategies in structure of personality's potentials. The latter is regarded as integral systemic characteristic of personality's individual-psychological features, which permit for personality to base on steady inner criteria and bench-marks in his (her) life activity and to preserve stability of orientations and effective functioning in conditions of pressure and variable environment [7]. In our opinion this component is rather important exactly for professional functioning and, that is why, shall purposefully be formed in higher educational establishments.

When planning formation of students' skills to effective usage of coping strategies it is necessary to clear understand existing trends, connected with these components of psychological readiness for future professional activity. Solution of this task will permit to work out criteria and requirements to students in process of their psychological and psycho-physical training, to work out effective methodic of psychological fitness's formation in process of physical education.

At present, problems of coping behavior of people are researched in the base of material of different kinds of activity as well as on the base of material of different age and social strata's representatives. We can note the works of L.A. Alexandrova [1], K.I.Kornieva [5], A.I. Prikhidko [10], Ye. I. Rasskazova and T.O. Gordyeyeva [11], O.I.Sklen [12], S.A. Khazova [14], I.V. Shagarova [15], G.Bouchard [17], B.Compas [19], R.Lasarus [21]. Such works as [3, 4, 6, 13, 16, 18, 20] as well as many other are also of significant interest. There were studied such questions as: mechanism of coping-strategy's influence, its interconnection with human personality's resources and other psychological characteristic, age and sex distinctions and etc. It was determined that for coping with stress a person uses own coping strategies. Their choice depends on personal experience and psychological reserves.

In physical education there also exists interest to studying of students' psychological components. In this context the work by S.I. Bielov [2] shall be mentioned.

In psychology basic coping-strategies are considered to be: strategy of "solution of problem", strategy of "seeking of social support" and strategy of "avoiding". The first is classified as active behavioral structure, in using of which a person apply own resources for seeking of possible solutions of a problem. The second is also regarded as active behavioral strategy: person appeal to surrounding people for assistance (family, friends and so on). The third strategy is considered also to be a behavioral strategy, with using of which person tries to avoid contact with

surrounding people, wants to “press out” solution of problem. It is considered that situational application of all three strategies is the most effective.

Methodic of coping strategy’s studying was developed by E.Heim. He marked out cognitive, emotional and behavioral coping strategies. These strategies were, in their turn, divided in three groups: adaptive variants of coping behavior; not adaptive and relatively adaptive variants of coping behavior. In our opinion it is purposeful to use methodic of E.Heim for studying of students’ coping strategies. It permits to analyze 26 situational-specific variants of coping. With it diagnostic procedure does not take much time. Processing of received data is also rather simple.

The research has been fulfilled in compliance with topical plans of scientific-research works of physical education department of Rail way transport Dniepropetrovsk national university, named after V. A. Lazarev and is a part of topic “Theoretical-methodological and pedagogic principles of psychological and psycho-physical training of students in process of physical education” (state registration number 0113U006237).

Purpose, tasks of the work, material and methods

The purpose of the work is to determine existing trends, related to usage of coping strategies in students’ life activity.

The tasks of the research:

1. To determine coping strategies, applied by students in cognitive, emotional and behavioral spheres.
2. To find out adaptive, not adaptive and relatively adaptive coping strategies, used by students.

Material of the research: in the research 600 students of Dniepropetrovsk national university of railway transport, named after V.A. Lazarev, participated. 300 were boys and 300 were girls. Age of participants was 17-19 years.

The methods of the research:

Diagnostic of coping strategies, used by students in their life activity was carried out by methodic of E.Heim, adapted by L.I. Vasserman.

From statistical methods we used grouping and graph plotting of experimental data.

Results of the research

Cognitive coping strategies, used by boys, are presented in table 1.

Table 1.

Cognitive coping strategies, used by boys, (N=300)

Cognitive coping strategies	Quantity	%
Ignoring	8	3
Humility	4	1.5
Dissimulation	31	10
Self-control	78	26
Analysis of problem	55	18
Relativity	31	10
Religiousness	5	2
Confusion	4	1.5
Seeking of sense	61	20
Determination of own value	23	8

As we can see in the table such strategy as “ignoring” is used by 8 students, 3 %. “Humility” as strategy of cognitive copying was characteristic for 4 students (1.5 %). Strategy of “dissimulation” was applied by 31 students (10 %). “Self control” was practiced by 78 students - 26 %. “Analysis of problem” was cognitive strategy for 55 students (18 %). “Relativity” was used in life activity by 31 students (10 %). “Religiousness” as strategy was intrinsic to 5 students - 2 %. «Seeking of sense” as strategy was used by 61 students (20 %). Strategy “determination of own value” was characteristic for 23 students (8 %). “Confusion” as a strategy was declared by 4 students (1.5 %).

Emotional coping strategies of boys are given in table 2.

Table 2.

Emotional coping strategies of boys (N=300)

Emotional coping strategies	Quantity	%
Protest	16	5.33
Emotional release	0	0
Suppression of emotions	43	14.33
Optimism	210	70
Passive cooperation	4	1.33
Obedience	0	0
Self-accusation	27	9
Aggressiveness	0	0

In the table we can see that “protest” as strategy is used by 16 students (5.33 %). Strategy of “suppression of emotions” was used by 43 students (14.33 %). The most wide spread strategy of emotional copying was “optimism” it

was mentioned by 210 students, i.e. 70 %. Strategy “passive cooperation” was called by 4 students (1.33 %). “Self-accusation” was intrinsic to 27 students (9 %). We did not registered application by students of such strategies as “obedience”, “aggressiveness” and “emotional release”.

The boys’ behavioral coping strategies are given in table 3.

Table 3.

Boys’ behavioral coping strategies (N=300)

Behavioral coping strategies	Quantity	%
Distraction	97	32.33
Altruism	12	4
Active avoiding	27	9
Compensation	12	4
Constructive activity	16	5.33
Retarding	27	9
Cooperation	74	24.66
Appealing	35	11.66

Strategy of “distraction” was used by 97 students- 32.33 %. “Altruism” as a strategy was declared by 12 students (4 %). “Active avoiding” is used by 27 students (9 %). “Compensation” was characteristic for 12 students (4 %). “Constructive activity” as own strategy was applied by 16 students that was 5.33 %. “Retarding” as strategy was used by 27 students (9 %). Strategy “cooperation” was used by 74 students (24,66 %). “Appealing” as strategy turned out to be characteristic for 35 students – 11.66 %.

Cognitive coping strategies, used by girls are given in table 4. “Ignoring” was characteristic for 4 girl students (1.33 %). “Dissimulation” as cognitive coping strategy was practiced by 52 girls (17.33 %). Such strategy as self-control” was applied by 66 girl students, or 22 %. “Analysis of problem” was characteristic for 30 girl students (10 %). Strategy “relativity” was registered in 39 girl students (13 %). “Religiousness” was intrinsic to 13 girls (4.33 %). Strategy “confusion” was noted by 9 girls ((3 %). “ Seeking of sense “ as strategy was diagnosed at 44 girl students (14.66 %). “Determination of own value “ as strategy was determined in 43 girls (14.33 %). Such strategy as “humility” was not registered among girls.

Table 4.

Cognitive coping strategies, used by girls (N=3000)

Cognitive coping strategies	Quantity	%
Ignoring	4	1.33
Humility	0	0
Dissimulation	52	17.33
Self-control	66	22
Analysis of problem	30	10
Relativity	39	13
Religiousness	13	4.33
Confusion	9	3
Seeking of sense	44	14.66
Determination of own value	43	14.33

Emotional coping strategies of girl students are presented in table 5. Such strategy as «protest” was diagnosed at 13 girl students (4.33 %). “Emotional release” as strategy was used by 9 girls (3 %). Strategy “suppression of emotions” was characteristic for 61 girl students, i.e. 20.33%. Like in sample of boys the most widespread emotional coping strategy of girls was “optimism”. It was diagnosed at 174 girl students that was 58 %. “Passive cooperation” as own strategy was called by 13 girl students (4.33 %). “Self-accusation” was mentioned by 4 girls (1.33 %). Such strategy as “aggressiveness” was found at 13 girl students that was 4.33 %.

Table 5.

Emotional coping strategies of girls (N=300)

Emotional coping strategies	Quantity	%
Protest	13	4.33
Emotional release	9	3
Suppression of emotions	61	20.33
Optimism	174	58
Passive cooperation	13	4.33
Obedience	13	4.33
Self-accusation	4	1.33
Aggressiveness	13	4.33

The girls' behavioral coping strategies are given in table 6.

Table 6.

Girls' behavioral coping strategies (N=300)

Behavioral coping strategies	Кількість	%
Distraction	87	29
Altruism	30	10
Active avoiding	65	21.66
Compensation	13	4.33
Constructive activity	22	7.33
Retarding	48	16
Cooperation	26	8.66
Appealing	9	3

Strategy "distraction" was registered at 87 girl students that made 29 %. "Altruism" as strategy was registered at 30 girl students (10 %). Strategy "active avoiding" was practiced by 65 girls (21.66 %). Strategy "compensation" was used by 13 girls (4.33 %). "Constructive activity" was characteristic for 22 girl students (7.33 %). Application of strategy "retarding" was declared by 48 girl students (16 %). "Cooperation" as own strategy was called by 26 girl students (8.66 %). Strategy "appeal" was registered at 9 girl students (3 %).

E.Heim included in adapting cognitive coping strategies the following: "analysis of problem", "determination of own value" and "self control". They are forms of behavior, oriented on analysis of difficulties and possible ways out of them; increasing of self evaluation and self control; more profound understanding of own personality as a value; belief in own resources in overcoming of difficult situations. In adapting emotional copying strategies he relates: "protest", "optimism". These strategies are characterized by emotional state with active indignation and protest towards difficulties and by belief in way out from any, even the most difficult, situation. Behavioral adapting coping strategies include: "cooperation", "appeal", "altruism". They are strategies, which imply personality's cooperation with more significant (more experienced) people, seeking of support in close social environment or offering it to close people for overcoming of difficulties.

Not adapting cognitive strategies include: "humility", "dissimulation", "confusion" and "ignoring". They are passive forms of behavior, characterized by refuse to overcome difficulties, caused by absence of belief in own forces and intellectual resources, by conscious underestimation of troubles. Not adapting emotional copying strategies include: "suppressing of emotions", "obedience", "self-accusation", "aggressiveness". These variants of behavior are characterized by suppressed, hopeless emotional state, obedience, feeling of anger and accusation of oneself and other. Not adapting behavioral strategies are: "active avoiding", "retarding". For such variants of behavior it is characteristic to avoid thoughts about troubles, passivity, loneliness, calmness, isolation, wish to avoid active contacts, refusal to solve problems.

Relatively adapting cognitive coping strategies, in opinion of E.Heim, are: "relativity", "seeking of sense", and "religiousness". With such forms of behavior activity of personality is oriented on evaluation of difficulties in comparison with other people, on giving special sense to their overcoming, on belief in God and stability of belief when meeting problems. Relatively adapting emotional strategies are: "emotional release" and "passive cooperation". They are characterized by behavior, oriented either on release of tension, which are connected with problems or on transferring of responsibility for solution of problems to other people. Concerning adapting behavior strategies, they include: "compensation", "distraction", "constructive activity". When using such strategies, person's behavior is characterized by strive for temporary distraction from problem's solution with the help of alcohol, medicine, penetration in favorite business, travels, fulfillment of own cherished wishes.

Processing of data, obtained in our research by method of Heim, showed the following. In sample of boys it was found that usage of cognitive adapting strategies is characteristic for 52 % of students. Cognitive not adapting strategies were registered at 16 % of students. Application of cognitive relatively adapting strategies is characteristic for 32 % of students.

Emotional adapting coping strategies are characteristic for behavior of 75.33 % of students. Using of emotional not adapting strategies is intrinsic to 23.33 % of students. Application of emotional, relatively adapting strategies was diagnosed in 1.33 % of students.

Application of behavioral adapting coping strategies was determined at 40.32 % of students. Behavioral not adapting strategies were intrinsic to 18 % of students. Using of relatively adapting behavioral strategies was diagnosed at 41.66 % of students. The mentioned data are given in table 7.

Table 7.

Adapting, not adapting and relatively adapting coping strategies of boys (%) N=300

Variants of coping behavior	Cognitive coping strategies	Emotional coping strategies	Behavioral coping strategies
Adapting	52 %	75.33 %	40.32 %
Not adapting	16 %	23.33 %	18 %
Relatively adapting	32 %	1.33 %	41.66 %

In girls' sample we found that application of cognitive adapting coping strategies was characteristic for 46.33 % of girls. Cognitive not adapting strategies are used by 21.66 % of girls. Usage of cognitive, relatively adapting strategies was intrinsic to 31.99 % of girl students.

62.33% of girls use emotional adapting strategies. Emotional not adapting strategies are characteristic for 30.32 % of girl students. Emotional, relatively adapting strategies were declared by 7.33 % of girl students.

21.66% of girls use behavioral adapting coping strategies. Not adapting behavioral strategies are used by 37.66 % of girls. Behavioral, relatively adapting strategies were used by 40.66 % of girl students. These data are given in table 8.

Table 8.

Adapting, not adapting and relatively adapting coping strategies of girls (%) N=300

Variants of coping behavior	Cognitive coping strategies	Emotional coping strategies	Behavioral coping strategies
Adapting	46.33 %	62.33 %	21.66 %
Not adapting	21.66 %	30.32 %	37.66 %
Relatively adapting	31.99 %	7.33 %	40.66 %

Analyzing the received data we can note the following. In cognitive sphere the most widespread coping strategy is "self control". It was 26% for boys and 22% for girls. In emotional sphere the most widespread strategy was "optimism" – 70% for boys and 58% for girls. In behavioral sphere we registered "distraction" as the most often used. 32.33% of boys use this strategy and 29% of girls.

There is certain prevalence in students' using of adaptive strategies in comparison with not adaptive and relatively adaptive. With it, it concerns both cognitive and emotional strategies as well as behavioral ones (excluding girls' and boys behavioral strategies).

Among adapting coping strategies students' using of adaptive emotional strategies in comparison with adapting cognitive and behavioral ones is much oftener. For girls it is at level of 62.33 %, for boys – 75.33 %. For comparison: adapting cognitive strategies were at level of 46.33 % for girls and 52 % for boys. Adapting behavioral strategies were registered at levels of 21.66 % for girls and 40.32 % for boys. In our opinion, for explanation of this fact it is necessary to fulfill special psychological researches.

It should also be noted that among not adapting coping strategies the least are used: cognitive not adapting strategies of girls (21.66 %), cognitive not adapting strategies of boys (16 %), behavioral not adapting strategies of boys (18 %). It is interesting that these figures are rather big and require appropriate pedagogic work. Usage of the following not adapting strategies is also significant: emotional not adapting strategies of girls (30.32 %), behavioral not adapting strategies of girls (37.66 %), emotional not adapting strategies of boys (23.33 %). In this case pedagogic work is also demanded.

Among relatively adapting coping strategies the most seldom are used the following strategies: emotional relatively adapting strategies (7.33 % - girls) and the same by boys - (1.33 %). At the same time rather significant is usage of the following relatively adapting strategies: cognitive (31.99% - girls), behavioral (40.66% - girls), behavioral, relatively adapting strategies 41.66% - boys.

In our opinion pedagogic work, orienting students on effective usage of coping strategies, shall be conducted in process of physical education, in its structure psychological and psycho-physical training are realized [8]. With it the main task will be, on the one hand formation of students' knowledge about usage of coping strategies and, on the other hand, formation of professionally important structural components of personality.

Conclusions:

1. The most widespread coping strategies of students are: a) in cognitive sphere – "self control"; b) in emotional sphere – "optimism"; c) in behavioral sphere – "distraction".
2. In comparison with not adapting and relatively adapting strategies students use much oftener adapting strategies (except behavioral adapting strategies both among girls and boys).
3. Among adapting coping strategies the most wide spread are adapting emotional strategies (for girls and boys).
4. Among not adapting copying strategies the most widespread is using of the following: emotional and behavioral not adapting strategies of girls and emotional not adapting strategies of boys.
5. Among relatively adapting coping strategies the most widespread are: cognitive and behavioral relatively adapting strategies of girls, cognitive, relatively adapting strategies of boys.

6. Students require special training in sphere of coping.

Further researches will be oriented on analysis of physical education's opportunities for formation of students' skills to effectively use coping strategies.

References:

1. Aleksandrova L.A. *Psikhologicheskie usloviia adaptacii lichnosti k usloviyam povyshennogo riska prirodnykh katastrof* [Psychological conditions of personal adaptation to the conditions of the increased risk of natural disasters], Cand. Diss., Moscow, 2004, 207 p.
2. Belykh S.I. *Pedagogika, psihologia ta mediko-biologicni problemi fizichnogo viovanna i sportu* [Pedagogics, psychology, medical-biological problems of physical training and sports], 2013, vol.7, pp. 7-14. doi:10.6084/m9.figshare.736501
3. Vasserman L.I., Ababkov V.A., Trifonova E.A. *Sovladanie so stressom. Teoriia i psikhodiagnostika* [Coping with stress. Theory and psychological testing], Sankt Petersburg, Speech, 2010, 192 p.
4. Gordeeva T.O., Shepeleva E.A. *Vestnik Moskovskogo universiteta* [Bulletin of Moscow university], 2006, vol.3(14), pp. 78 – 85.
5. Kornev K.I. *Vestnik Omskogo universiteta* [Bulletin of Omsk university], 2006, vol.2, pp. 17-24.
6. Kriukova T.L. *Psikhologicheskij zhurnal* [Psychological journal], 2005, vol.26(2), pp. 5 – 15.
7. Leont'ev D.A. *Lichnostnyj potencial* [Personal potential], Moscow, Meaning, 2011, 680 p.
8. Pichurin V. V. *Naukovo-pedagogichni problemi fizichnoi kul'turi* [Scientific and pedagogical problems of physical culture], 2012, vol.26, pp. 84-90.
9. Pichurin V. V. *Pedagogika, psihologia ta mediko-biologicni problemi fizichnogo viovanna i sportu* [Pedagogics, psychology, medical-biological problems of physical training and sports], 2014, vol.11, pp. 44-48. doi: 10.15561/18189172.2014.1108
10. Prihid'ko A.I. *Social'no-psikhologicheskij analiz adaptacii uchenikh k social'nym izmeneniam* [Socio-psychological analysis of adaptation to social change scientists], Cand. Diss., Moscow, 2006, 29 p.
11. Rasskazova E.I., Gordeeva T.O. *Psikhologicheskie issledovaniia* [Psychological research], 2011, vol.3(17), pp. 20-26.
12. Sklen' O.I. *Naukovi zapiski Institutu psikhologii im. G.S.Kostiuka APN Ukrayini* [Scientific proceedings of the Institute of Psychology], 2006, vol.27, pp. 476-486.
13. Starchenkova E.S. *Vestnik Sankt-Peterburgskogo gosudarstvennogo Universiteta* [Bulletin of St. Petersburg State University], 2009, vol.12(2.1), pp. 198 – 205.
14. Khazova S.A. *Sovladaiushchee povedenie odarennykh starsheklassnikov* [Coping behavior gifted high school students], Cand. Diss., Kostroma, 2002, 246 p.
15. Shagarova I.V. *Lichnostnye determinanty i tipy koping-povedeniia v situacii poteri raboty* [Personal determinants and types of coping behavior in a situation of job loss], Yaroslavl, 2008, 228 p.
16. Bedi G., Brown S. Optimism, coping style and emotional well-being in cardiac patients. *British Journal of Health Psychology*. 2005, vol. 1, pp. 57-70.
17. Bouchard G., Guillemette A., Landry-Leger N. Situational and dispositional coping: an examination of their personality cognitive appraisals and psychological distress. *European Journal of Personality*. 2004, vol.18, pp. 221-238.
18. Carver C.S., Connor-Smith J. Personality and Coping. *Annual Review of Psychology*. 2010, vol. 61, pp. 679-704.
19. Compas B., Connor-Smith J., Saltzman S., Thomsen A., Wadsworth S. Coping with stress during childhood and adolescence: problems, progress and potential in theory and research. *Psychological Bulletin*. 2001, vol. 127(1), pp. 87-127.
20. Connor-Smit J.K., Flachsbart C. Relations between personality and coping: a meta-analysis. *Journal of Personality and Social Psychology*. 2007, vol. 93, pp. 1080 – 1107.
21. Lazarus R. Emotions and interpersonal relationships: toward a person-centered conceptualization of emotions and coping. *Journal of Personality*. 2006, vol.74(1), pp. 9 – 43.

Information about the author:

Pichurin V.V.: ORCID: <http://orcid.org/0000-0002-3893-375X>;
Dnipropetrovsk National University of Railway Transport named after
Academician V.Lazaryan; St. Lazaryana, 2, Dnipropetrovsk, 49010,
Ukraine. valeriypichurin@gmail.com

Cite this article as: Pichurin V.V. Coping strategies and psychological
readiness of students for professional work. *Pedagogics, psychology,
medical-biological problems of physical training and sports*, 2015,
vol.2, pp. 53-59. <http://dx.doi.org/10.15561/18189172.2015.0209>

The electronic version of this article is the complete one and can be found online
at: <http://www.sportpedagogy.org.ua/html/arhive-e.html>

This is an Open Access article distributed under the terms of the Creative
Commons Attribution License, which permits unrestricted use, distribution, and
reproduction in any medium, provided the original work is properly cited ([http://
creativecommons.org/licenses/by/3.0/deed.en](http://creativecommons.org/licenses/by/3.0/deed.en)).

Received: 10.12.2014
Published: 30.01.2015