

## THE ROLE AND TASKS OF PSYCHOLOGISTS WITHIN A SYSTEM OF PREVENTIVE MEASURES AIMED AT THE ROAD TRAFFIC SAFETY

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### **Abstract**

*Poland has one of the highest fatal accidents and victims indicators in European Union. In 2010, there were 38 832 road accidents. 3907 people were killed and 48 952 were injured. It is assumed that road accidents are a cost of the growth of motorise and transport. Since year 2000, there were about 14 millions registered vehicles in Poland. Today there are more than 22 millions. Road safety system should be aimed at decreasing the number of the road accidents victims and assisting the victims. In the recent years, there has been a change in the approach to the programs on the social prevention. It has been stressed out that, the programs based on the intuition of their creators and operators, adapted at will from other groups, or developed for other problems and being treated as universal ones, cannot be effective, and on the contrary, can bring about the results opposite to the intended. This is, why the problems of constructing, running and evaluating the preventive programs, have become a subject of the scientific interest. Interdisciplinary analyses led to conclusions that road traffic safety consists of many different factors that influence road safety. In this system, prevention works in two ways. It can not only help to eliminate or reduce the risk factors but it can also strengthen the protective factors. Among them, the most important are human factors. Driver can cause the risk but also by changing and adapting his driving style to the road conditions he can avoid traffic accidents. In each population, including the population of road traffic participants, there are people under various degrees of danger and susceptible to the risk factors.*

**Keywords:** road traffic safety, prevention, transport psychologist

### **1. Introduction**

Social prevention is a system of methods and measures, which are being undertaken in order to eliminate the causes of the negative social occurrences and to create conditions for the correct functioning and development of the individual people and social groups [3]. Such a negative occurrence, causing not only certain individual costs (direct and associated with the impaired development or made significantly more difficult) but also measureable (though difficult to calculate) social costs, is the existence in the society of the persons who are direct or indirect victims of the road accidents. Though it is assumed, that road accidents happen to be an inevitable cost of the growth of motorise, it however does not change the fact that it takes a systematic effort to not only reduce their number but also their strenuousness. That means striving to decrease the number of the road accidents victims and the extent of the damage sustained by them in a form of worsening their quality of life. Hence, in the programs of the long term actions concerning various spheres of the social, economic and health-oriented functioning, etc, the appearance of the demands, obligations, and tasks aimed at reducing the number of road accidents victims as well as creating a system for assisting the victims.

The occurrence of the road accidents and in the consequence, their victims, isn't new. What may vary, at the most, is their scope, different level of the danger and the damage caused. For years it has been reported that Poland has the highest fatal accidents indicator, in comparison with

other EU countries. Hence, conducting the tasks on the road traffic safety prevention requires development and implementation of the effective programs to reduce the number of the road accidents victims and assist people, who already have become such victims.

## **2. Objectives and levels of prevention**

In the recent years there has been a change in the approach to the programs on the social prevention. It has been stressed out that, the programs based on the intuition of their creators and operators, adapted at will from other groups, or developed for other problems and being treated as universal ones, can not be effective, and on the contrary, can bring about the results opposite to the intended [5, 2]. This is why the problems of constructing, running and evaluating the preventive programs, have become a subject of the scientific interest. Interdisciplinary analyses have allowed determining certain regularities and principles – standards – referring to the preventive programs independently of what social occurrence it concerns in detail.

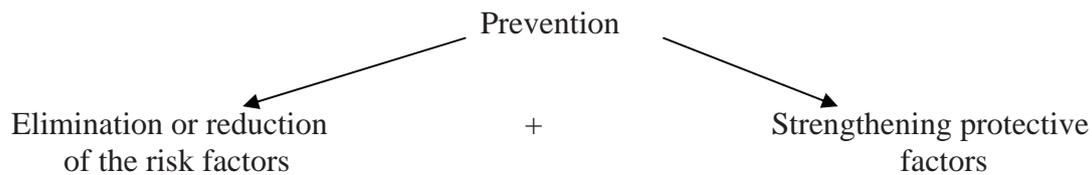
The starting point of planning the preventive actions on the road traffic safety is defining and determining the danger of becoming an offender / victim of an accident, in the categories of the risky behaviour.

By risky behaviour we understand various actions carrying a risk of negative consequences, both for the physical as well as mental health of an individual and the social group [5]. With such a definition, each participant of the road traffic, through a sheer fact of taking part, is potentially in danger of becoming a direct victim of an accident, and as a family member, member of the society or an emergency services worker – an indirect victim. The person may become a victim as a result of his own risky behaviour or by failing to avoid the consequences of such somebody else's behaviour (car drivers). So the objective of the prevention would be on one hand supporting the people in dealing with the dangers resulting from participating in the road traffic, and on the other, with respect to the persons, who have already become perpetrator / victim, eliminating or moderating the factors which block correct development, disturb healthy life style, lower its quality.

Analysis of the situation of the threat, including risky behaviour allows to determine, whether the responsibility for the tendency for the risky behaviour increasing the danger, lies in: **external factors**, i.e. social environment, including the relation to the standards, internal factors, i.e. personality system of an individual, as well as interaction between the internal and external factors. From among the factors affecting the risky behaviour causing threats, there are risk factors and preventive factors possible to be established. The risk factors are personality features, situations, conditions favouring bringing on and causing risky behaviour. Protective factors are the features, situations, conditions increasing the resilience to the effects of the risky behaviours or preventing such actions in a particular case. With such a definition of the causes of risky behaviours and favouring threats, certain significance becomes attached to the treating and planning of the preventive actions. Emphasise, or even resting the prevention on influencing one type of factors allowed to distinguish two essential concepts of prevention:

- a) concept of defensive prevention utilising knowledge on the risk factors, aiming to prevent occurrence of the negative actions by eliminating or limiting the occurrence of such risk factors,
- b) concept of creative prevention utilising knowledge on the preventive factors, preventing to strengthening the individual by the application of the positive, initiating and constructive measures.

Each of these concepts applied as the single and unique one, does not allow to achieve the expected results on the general scale. It can be effective on the individual scale [1, 5]. Currently the position presented assumes that the objective of the preventive intervention should be a simultaneous influence on both the risk factors and the protective factors.



In each population, including the population of road traffic participants, there are people under various degrees of danger and susceptible to the risk factors. In order to correctly and professionally plan preventive actions it is necessary to have a diagnosis of the degree of being in danger of risky behaviours, including such behaviours on the part of the others.

In planning the preventive actions, very important is the stage of thorough diagnosis, both group one (of a population), and the individual. Only universal diagnosis of the dimensions and etiology of the occurrence allows to determine, what degree of danger we are actually dealing with and to correctly plan preventive actions. Addressing improper actions to the incorrect group not only does not bring the expected results, but can even be harmful. Traditionally, depending on the degree of risk and danger of a risk, the prevention is being carried out at the three levels. With respect to the majority of a risky behaviours (addictions, aggression, risky behaviours, etc) we can list three levels of danger [5, 2].

**Low risk group**, which comprises all persons potentially endangered by undertaking risky behaviours and consequences of risky behaviour of the others (drivers) although not causing risk through their own actions. It consists of all road traffic participants, as each of them, even through no guilt of his own, can become a direct or indirect victim (as a relative, witness, person working for the emergency services) of a road accident.

**Increased risk group.** This group should include, in respect to a danger of being a perpetrator or/ and a victim of a road accident, those drivers who commit offences or/ and crimes in the road traffic, do not abide by the rules and traffic regulations, advocate aggressive driving style, behave in a risky manner in traffic. These will, first of all, be the drivers, who exhausted the limit of the penalty points, those who reduced the amount of points by taking part in the appropriate trainings, persons stopped for driving under the influence of alcohol and being in the state of intoxication as well as those drivers who are found to be in a state of intoxication from other substances, and drivers – being the cause of road collisions. These persons are described as having been through an initiation of the risky behaviours that can lead to a road accident, although such behaviours have not yet lead to such accident. And they belong to a group of high accident risk.

**High risk group** (danger) are the people, who have already directly or/ and indirectly become the victims of the road accident involving fatality or injury. These people are observed to have deep negative consequences both in terms of health and psycho-social.

Three levels of danger correspond with three levels of prevention.

**First level prevention** – closest to promotion – is addressed to widest population of people potentially in danger, belonging to the low risk groups. The objective of the prevention at this level is promotion of healthy lifestyle, life and health as a own values, the sense of responsibility for oneself and others, correct relation to the standards and regulations, other people, learning to cope in various life situations (difficult, stress generating, temptations etc). At the end the idea is to decrease the extent of the risky behaviours and thus the level of danger. First level prevention is of a proactive character (widening the range of ones own activity) and pre-therapeutic while the strategies (actions) most often used at this stage are informative and educational.

**Second level prevention** – is addressed to people, who undertake risky behaviour, and thus belonging to the group of an increased risk. The objective of the activities is limiting the duration of a dysfunction and its consequences as well as enabling to withdraw from the habit of risky behaviours. In the case of the analysed road traffic safety prevention and decreasing the number of road accidents victims, the second level prevention should be addressed to the drivers from a high accident risk groups and its objective ought to be limiting the risky behaviours in the traffic and

preventing their consequences. Every interaction at this level should be preceded by an in-depth individual diagnosis (psychological examination). This is because the second level prevention is of a reactive, intervening character and partly therapeutic. The strategies most often used at this stage are, apart from those used at the earlier level, the intervening strategies, and in the justified cases the strategies of mitigating the damage.

**Third level prevention** is directed at the high risk groups encompassing people, who have already experienced negative consequences of road accident as a perpetrator / participant / direct or/and indirect victim. The objective of the actions at this level of prevention is counteracting the deepening of dysfunction and possible illness process being a consequences of the physical or/ and mental injuries as well as showing the chance and supporting a return to the normal life and functioning (including being the driver). Similarly to the case of second level, the basis for planning and taking actions should be multi-aspect, in-depth diagnosis, not only of the direct, but also other consequences of the occurrence, mechanisms of the observed dysfunctions, their intensity and conditions of their prevailing. Depending on the scale and types of the dysfunction, at this level of prevention there are intervening strategies used most often together with those mitigating the damage: therapy, rehabilitation, social rehabilitation.

The newest work concerning prevention indicates that traditional division into three levels is not always possible to be applied. What speaks against it is that it is unclear, which means that in some cases it is hard to distinguish the border between the prevention aimed at stopping the problems before they occur, and actions which aim is limiting the costs of dysfunctions, which have already occurred [4, 6]. This concerns fading of the borders between second and third level prevention. Because of at the second level prevention, it is already necessary to conduct sessions on psycho education, socio-therapy, short term therapy or crisis intervention. These are actions bordering on treatment (therapy) or indeed therapeutic, which, using a triple division, are reserved for the third level.

The problem looks completely different in the case of preventive action, aimed at reducing the number of road accidents and assisting their victims. In that case, depending on the understanding of the prevention tasks it is possible to talk about two or three levels. With a wide understanding of the tasks it is possible to maintain triple division of the prevention levels, as it was shown before. First level is prevention in a classic sense, encompassing those road traffic participants, who only potentially can become victims of accident, and thus actions strictly preventive. Second level represents actions on limiting the extent of the risky behaviours in the road traffic, within the group of those traffic participants, who already take those actions. In this case the subject are still preventive measures (persons covered by those actions are not yet perpetrators / accidents victims) – but in respect to the persons, for whom the strategies characteristic for the typical prevention (informative, educational, alternative) turn out to be ineffective, often due to individual traits and predispositions for the risky behaviours. And finally the third prevention level would encompass sense stricte road accidents victims, persons with the alcoholic problems and addicted.

With a narrower understanding of the prevention tasks it would be more appropriate to talk about its two levels, but differently than, for example, in the addictions or aggression prevention and actions for the benefit of e.g. road accidents victims, the difference between the first and second level of prevention will become faded. In both cases it encompasses in fact persons who have not yet become the victims, although are to a varying degree in danger. Hence, although it is necessary to use different strategies, these persons may be addressed together and actually talk about pre-emptive prevention. With such a definition, these actions are clearly different from the actions that need to be taken towards persons who have become direct or / and indirect accidents victims and who require comprehensive and system based assistance.

The significant role in the preventive actions at every level is played by the psychologists. The psychologists' tasks, to benefit the road traffic safety, using as an example, actions against drink driving, are presented – for simplicity – in the form of a table.

Tab. 1. The role and tasks of the psychological services in the system of actions against drink driving

<b>ACADEMIC AND SCIENTIFIC RESEARCH FACILITIES;</b>				
<ul style="list-style-type: none"> <li>- Disclosing objective factors favouring making decisions on driving vehicle under the influence of alcohol.</li> <li>- Disclosing objective factors favouring making decisions on refraining from driving vehicle under the influence of alcohol.</li> <li>- Developing psychological conditions for the effectiveness of various preventive programs: information, psycho-educational, alternative, intervening, therapeutic.</li> <li>- Developing methodological materials, scientific aids, publications, etc.</li> <li>- Analysis of the effectiveness of various preventive programs.</li> </ul>				
<b>PRIMARY (FIRST DEGREE) PREVENTION:</b>				
<p><b>Objective:</b> widening knowledge on the psychological conditions of the road traffic behaviour, indicating risk and danger factors in the road traffic, including influence of an alcohol psycho-physical efficiency of the driver, shaping general attitudes of respecting health, life, safety, and responsibility for oneself and others.</p>				
Subject of actions	Type of actions	Tasks for the psychologists	Psychological services	Co-operation
Entire society; everybody is a participant of the road traffic, if only as a pedestrian.	Informative  Educational, e.g. road safety education at schools, education through mass-media, education on the alcohol influence on the person's efficiency.	Developing programs.  Determining programs effectiveness conditions.  Developing methodological materials and programs aids.  Conducting programs.	School psychologists.  Work psychologists.  Transport psychologists.	Educational facilities.  Mass-media.  Drivers training centres.  Training centres for instructors and examiners candidates.  Government and local administration centres.
<b>SECONDARY (SECOND DEGREE) PREVENTION:</b>				
<p><b>Objective:</b> widening knowledge on the road traffic dangers and mechanisms regulating road traffic behaviours, indicating objective individual factors of the driver's risky behaviour, including drink driving, shaping motivation and attitudes to observe road traffic safety rules, developing and strengthening factors protecting from risky behaviours, problems of people's attitude towards alcohol, problems of addictions, „emergency" behaviours, ability to be assertive, learning intensifying and promoting factors preventing drink driving. Monitoring effectiveness of the actions undertaken of organisational – legislative, punitive, educational and preventive character (including psycho-educational).</p>				
Subject of actions	Type of actions	Tasks for the psychologists	Psychological services	Co-operation
<p>All the drivers, and in particular:</p> <ul style="list-style-type: none"> <li>- drivers candidates of young age,</li> <li>- drivers carrying passengers and freight</li> <li>- Drivers operating in difficult conditions,</li> <li>- drivers of the vehicles with the right of way.</li> </ul> <p>Drivers, who happen to drive under the influence of alcohol, irrespectively of whether they have ever been stopped or not.</p>	<p><b>Drivers' psychological tests.</b></p> <p>Informative and educational programs.</p> <p>Psycho-educational programs.</p>	<p>Conducting psychological drivers' tests and psychological ruling.</p> <p>Developing preventive programs, methodological materials and aids.</p> <p>Conducting educational and psycho-educational programs.</p> <p>Participating in programs evaluation work.</p>	<p>Transport psychologists authorised for psychological tests of people driving vehicles.</p> <p>Addictions psychologists.</p> <p>Work psychologists.</p>	<p>Drivers training centres.</p> <p>Drivers' psychological testing laboratories.</p> <p>Training centres for instructors and examiners candidates.</p> <p>Doctors conducting drivers' examinations.</p> <p>Mass-media.</p> <p>Firms employing drivers.</p> <p>Government and local administration centres.</p> <p>Penitentiaries and remand centres.</p> <p>Addictions treating centres.</p>

<b>THIRD LEVEL (THIRD DEGREE) PREVENTION:</b>				
<b>Objective:</b> counteracting deepening of the disturbed behaviour leading to the risky behaviours in the road traffic, limiting psychological and social costs of such behaviours, making it possible to return to the safe behaviours, preventing reoffending.				
<b>Subject of actions</b>	<b>Type of actions</b>	<b>Tasks for the psychologists</b>	<b>Psychological services</b>	<b>Co-operation</b>
Drivers, who have been stopped for drink driving.	<b>Drivers' psychological tests.</b>	Psychological testing of the drivers, who have been stopped for being in the state of intoxication, based on the specific methodology of examinations.	Transport psychologists.	Drivers' psychological testing laboratories.
Drivers, who have been stopped for being in the state of intoxication	Informative and educational programs.		Psychologists, specialists in diagnosing addictions.	Firms employing drivers. Preventive and therapy centres including treating addictions.
Road accidents offenders under the influence of alcohol.	Psycho-educational programs.	Developing and conducting psycho-educational programs.	Clinical psychologists, specialists in treating addictions.	Self assistance groups for treating addictions.
Persons convicted from the par. 87 of the PC, par. 178a of the CC, par. 177 in connection with the par. 178a, prisoners.	Programs and alternative actions	Participating in the work on assessing effectiveness and evaluating programs	Psychologists, specialists in the short term therapy.	Penitentiaries.
	Intervention programs for the offenders and victims.		Penitentiary psychologists.	Government and local administration centres.

### 3. New tasks for the transport psychologists

On the 5 of January 2011 Polish Parliament passed the Bill on vehicles drivers (J. of L. Nr 30, par. 151), which is to be introduced on the 11 of February 2012. The bill changes the scope of the psychological examinations of the vehicle drivers, also introducing obligatory educational actions. The changes have been introduced to the chapter 13, in particular, which is entirely dedicated to psychological examinations. Appropriate changes can also be found in other parts of the Bill. Below, described are the most important changes, of a particular influence on the theory and practice of the transport psychology, indicating new tasks for the psychologists.

#### 3.1. Education

1. The Bill envisages new form of educating driver candidates. Probation period for the person who obtained B category driving licence for the first time is to last 2 years, starting from the day it was issued.

**During the 2 – year probation driving** each driver – will be obliged to attend the additional education course on the road traffic safety, between the 4 and 8 month counting from the day driving licence was issued.

This additional education course on the road traffic safety will be run by a regional road traffic centre.

Additional education course on the road traffic safety is to be run in the form of theoretical sessions, lasting for 2 hours, and covering psychological aspects of the vehicle driving and participating in the road traffic in particular.

2. The regulations envisage, that the **course for the candidates for instructors (examiners)** will cover, among the others, problems of the transport psychology conducted by the persons with the specialist knowledge on this subject.

3. **Professionally active examiners** are obliged and will still be to participate in the 3-day workshops of the professional improvement for the examiners.
4. The course **for the drivers of the vehicles with the right of way** will cover theoretical sessions on the transport psychology problems conducted, in the form of lectures and exercises, by the persons with the specialist knowledge on this subject.

### **3.2. Re-education**

In the contemporary regulations, the re-education was present in a limited scope – only for the people who did not exceed the limit of 24 penalty points. More so, it was only a voluntary participation. The Bill envisages obligatory re-education courses for:

1. persons, who during the probation period committed 2 offences against the road traffic safety – re-education on the road traffic safety.
2. persons, who did exceed the limit of 24 penalty points – re-education on the road traffic safety,
3. persons stopped for driving while being in the state of intoxication, having drunk an alcohol or ingesting other substances acting similar to alcohol – re-education on the anti-alcohol problems.

Re-education course will be run, for a fee, by the regional road traffic centre.

Re-education course **on the road traffic safety** is to be run in the form of lectures and workshop sessions covering psychological aspects of the vehicle driving and participating in the road traffic in particular.

Re-education course **on the anti-alcohol problems and counteracting drug-addiction** is to be run in the form of lectures covering in particular:

- 1) influence of alcohol or a substance acting similar to alcohol on the perception functions of the driver as well as the decisions made by him in the road traffic;
- 2) psychological aspects of the vehicle driving and participating in the road traffic.

Re-education courses **are to be conducted by the persons with the specialist knowledge on this subject.**

The changes presented above, only partially correspond with the proposed program of actions for the road traffic safety, including actions aimed at limiting the extent of the drink driving offence occurrences. Its correct implementation required, wider than at present, participation of the psychologists in: both at the stage of diagnosis, as well as post-diagnostic procedures (re-educational, psycho-educational). It requires – and is not envisaged by the regulations – a varied approach to the drivers from different risk groups and depending on the diagnostic category, to which the perpetrator can be qualified. Homogenous, utilitarian re-education program may turn out to be (and it is likely to be) insufficient. However to fulfil the tasks contained in the Bill it is necessary to prepare appropriate personnel to turn it into practice. This is an opportunity for the psychologists, both theoreticians and practitioners.

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