

## PSYCHOLOGY OF FLIGHT ATTENDANT'S PROFESSION

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The profession of a flight attendant appeared in aviation in the 1920s. Professional community of flight attendants is constantly growing with the growth of complexity of aviation technology, professional standards of passenger service and safety. The psychological scientific research was carried out by a psychologist who worked as a flight attendant. The study revealed the psychological content, demands, peculiarities in cabin crews' labor. A job description was accomplished. Temporal and spatial characteristics, the main contradictions, unfavorable psychogenic and stress factors in labor were examined and described. Psychological profiles of a cabin attendant and of an air passenger were drawn up.

**Keywords:** flight attendant, labor, psychological content, profession, cabin crew, job description.

Civil aviation is a phenomenon of the 20th century and among the 47,000 professions known in the world, at least 100 occupations are associated with aviation, and one of them is an aircraft cabin attendant. It is a unique profession, familiar to anyone who has ever travelled by airplane. The profession of flight attendant has existed only for a lifespan, but its history is rich and eventful. The new book "Psychology of Flight Attendant's Profession" (Filipieva, 2011) is based on the dissertation "The Psychological Content of Cabin Attendant's Labor in Civil Aviation" (2006). For the last quarter of the 20th century the author worked as a flight attendant on the international airlines and the ensuing 10 years was a psychologist in "Aeroflot".

A number of authors such as Edwards M. & E. (UK), Leighman (Argentina), Johnson, Bohr, Prew, Williams, Walltrip (USA) published

books on aviation psychology and documents in the civil aviation periodicals. These were mainly concerned with the history of the profession and health care of flight attendants. In broad terms the discussion of issues addressing the flight attendant work has been conducted in a rather erratic and unsystematic way as a response to sporadic interest in the profession among the airline companies or in society (a plane crash, for example, or tragic death of crew members in a terrorist attack). Only a few articles have been translated from English into Russian. As for the Russian publications, one should mention "A Guide for Cabin Attendants in the Psychology of Communications" (Ushakova, Kozlov, & Egides, 1990) which for a long time was the only tribute Russian psychologists paid this occupation.

The job of a flight attendant first appeared in the 1920s and spread around the world. In 1922, the British company "Daimler Airways" made a momentous step: the company hired "cabin boys", whose job was to assist passengers by handing out leather steamer rugs, hot water bottles and cotton ear plugs. They also assisted air travelers during landing and while disembarking from the aircraft, and reassured passengers during the flight. In the USA, the year of 1926 witnessed appearance of the first "air messengers" on the airline "Stout Air Services" based in Detroit, MI. On 15 May, 1930 Ellen Church was appointed first American senior flight attendant, operating her first flight with eleven passengers on board the aircraft flying from San Francisco to Cheyenne. Her duties included winding the clock in the cockpit, killing the flies after take-off, and preventing passengers from throwing cigarette ends out of the windows. She also had to clean passengers' shoes, if necessary, and, to keep smiling, of course. In 1930 "Boeing Air Transport" hired eight stewardesses, historically known as the "Original Eight".

Elsa A. Gorodetskaya became the very first stewardess in civil aviation of the Soviet Union. On 5 May, 1939 she performed a flight from Moscow to Ashkhabad as a crewmember of the passenger aircraft Li-2, (The Lisunov-2, NATO-code: Cab), which was a Soviet-built, modified version of the American pre-war DC-3. It was a 13-hour flight with two landings. For over two months, Elsa Gorodetskaya was the first and the only stewardess in civil aviation of the USSR.

As for the exact number of cabin attendants in the global professional community there is no accurate information. In 1992, "Air Mexico",

for example, had 5,000 flight attendants, while German “Lufthansa” – 11,000. According to the information provided by Amalgamated Union of Aviation Workers, the total number of cabin attendants in Russia (the former Soviet Union) in 1985 was 16,000 people. According to assessments of American FA Independent Trade Union, there were 71 passenger airlines in the USA employing approximately 78,000 flight attendants in 2005. Currently (2011) “Air France” employs approximately 12,000 flight attendants, and “Aeroflot-Russian Airlines” – about 3,000 people. Nowadays there are cabin attendants working both in commercial and special aviation in Russia. According to the information from the Russian Federal Supervision Agency for Air Transport, there were 182 airlines (January, 2006), and up to 11,975 cabin attendants in the Russian Federation (January, 2010).

Professional community of flight attendants is constantly growing with the growth of complexity of aviation technology and professional standards; besides, there is an increasing threat of terrorist attacks against the aircraft and its passengers, which in its turn increases psychological and stress tensions in the occupation. Although passenger safety on board an aircraft is of prime concern, little or none scientific research was carried out on psychological demands of cabin attendant's work until as late as 2006. These detrimental effects on cabin attendant's psychology and wellbeing required to be addressed through an exhaustive theoretical and practical research of both working conditions and professional duties; otherwise it could lead to a disruption in the work of cabin attendant, with a whole range of destructing consequences for his/her personality, for air passengers, and the reputation of an airline company. Hence, the relevance of a conducted research in this field was determined by: a) challenges within practical aspects; b) the urgency of issues arising in work arrangement and competence of cabin attendants (professional selection, professional training, psychological assistance, etc.); c) the maturity of engineering psychology (equipped with theoretical and practical means and procedures) which provided a study of cabin attendant's labor in all its complexity.

The urgency of conducting a job analysis research and a need for compiling a scientific description of cabin attendant's labor triggered the study of psychological aspects of the profession in 1994. The objective of the study was to analyze and synthesize the psychological content of cabin attendant's labor.

There were formulated four tasks of the study: 1) to reveal and describe the distinctive features and specific character of psychological characteristics of cabin attendant's labor in the emotional, cognitive, executive, motivational spheres, and in communications; 2) to compile and systemize cabin attendants' ideas on the main work functions, motivations, and personal values in their professional activity; 3) to develop a set of psycho-diagnostic procedures for a psychological selection of applicants to the position of a cabin attendant, based on the results of a conducted research; 4) to create programs for psychological training of cabin attendants taking into consideration the results of the empirical study.

The object for study was a psychological component in the work of cabin attendant, both as an individual and as a cabin crewmember. The subject of study was cabin attendant's activity and communication on board an aircraft.

The classical working method included numerous observations at workplace; a study of the results of work (which employed the author's personal professional 25 year experience of flights) was carried out. To process the data there was employed the statistical method, logical comparison, calculations of percentage correlation, and the method of content analysis. The following modes of collecting empirical data were engaged: observation, surveys, interviews, assessments, consultations based on specially developed questionnaires and feedback forms. A "case study" and the analysis of specific cases and distinctive occupational errors were carried out. The analysis of documents regulating the work of a cabin attendant was conducted. Proficient cabin attendants acted as experts. Confidence, openness, mutual acceptance, and respect were basic principles to shape the relations between a psychologist and cabin attendants. Computer based self-reports, and projective psycho-diagnostic procedures of testing were used for prospective employee selection.

The sampling was provided by cabin attendants working on Russian airlines, and the "Aeroflot" passengers. The total number of people who volunteered the studies from 1994 to 2004 was 7,468; these included cabin attendants with different qualifications and specializations, applicants for the position of a cabin attendant, and other employees of the Airline. A total of 4,590 air passengers took part in the survey as respondents (1997). Thus, a degree of results authenticity for the research was ensured by: the representation of the sampling; the strictness of metho-

dology; the reliance on developed psychological methods of arrangement of scientific studies and results processing; systematization of research procedures; implementation of a complex of valid complementary procedures, relevant for purposes and tasks of the study; the use of extensive evidence and the care, with which it was qualitatively and quantitatively analyzed; statistical significance of empirical indices.

For the first time a psychological study has revealed the content and peculiarity of the work of cabin attendant. A job description has been accomplished, a formula of the profession (according to Prof. Klimov E.A.; Klimov, 2003) was designed, and psychological profiles of a cabin attendant and of an airline passenger have been drawn up. Psychological factors inherent in extreme situations have been identified, that is, a high degree of responsibility, unsafety, unpredictability, lack of information, extremely short time for decision making, and situation development in several simultaneous directions on board an aircraft.

Temporal and spatial characteristics of cabin attendant's labor have been examined. Temporal characteristics are determined by work-rest routine in civil aviation, being rigidly tied to flight schedules and flight durations. It has been established that being spatially restricted (the crowded conditions, the spatial narrowness, and constraint) on the one hand, the necessity of being exposed to many people at the same time (the "publicity factor") on the other, as well as the stressful nature of the emotional atmosphere on board a flying aircraft (unconscious fear of death as the basis of flight fear) shape specific requirements for the processes of communication and for personal qualities of a cabin attendant. The influence of unfavorable psychogenic and stress factors on a cabin attendant's performance of the professional duties was described.

A methodical complex for diagnosis of personal characteristics of a cabin attendant was developed, and a system of professional selection of applicants for the position of a cabin attendant was created. As for the professional training, there were developed several programs aimed at the increasing of emotional competence of cabin attendants taking into consideration their specialization and aptitude.

The main ideas and results of the study were reported at the 13th International Symposium of Aviation Psychologists (Oklahoma, USA, 2005) and at the interregional research-to-practice conference "Applied Psychology as a Resource for Social and Economic Development of Modern Russia" (Moscow, 2005). The data of study yielded a system

for psychological selection of applicants for the position of a cabin attendant, which has been consequently approved. Results of the study were applied for the selection and training of cabin attendants – the participants in the international competitions of professional skill, and also for development of psychological programs for cabin attendants in the training centers of different airlines and schools for flight attendants in Russia. About 3,000 flight attendants from Russian airlines attended the courses of initial training and skill improvement based on the program “Psychology of Professional Communications”.

Theoretical relevance of the study lies in description of psychological content of cabin attendant’s labor accomplished on the basis of the four-component structure “subject–action–object–surrounding world” (Strelkov, 2001), it has never been studied before in aviation psychology as well as in the worldwide civil aviation. Moreover, a new constructed formula of the profession showed that this occupation is unique in its complex combination of work functions in extreme working conditions: in regular flights as well as in emergency situations.

Practical results of the study described in the monograph may be of interest not only for experts in civil aviation, but psychologists studying other professions with high stress levels. The study shows a rich empirical data, processed according to the method of meaningful interpretation of oral and written interviews of airline carriers. The results of the described research enhance scientific knowledge in the field of psychology of labor, engineering, extreme psychology and psychology of professions. They also make possible to improve the psychological work with cabin attendants and the procedure of selecting applicants for the position of a cabin attendant; to carry out the analysis of the applicants’ personal characteristics; the system, quality, and effectiveness of the certification of the working cabin attendants. A methodical complex of training programs has been developed to ensure: an advanced level of professional training and emotional competence of cabin attendants, improved professional adaptation and elimination of reasons, which impede this adaptation. The study contributes to a clearer understanding of semantic structures of professional activity, and introduction of innovative approaches to the development of a professional career, professional consultation and psychological assistance.

350 respondents took part in the survey of associative perception of cabin attendant’s occupation. As a result, 145 different professions were

identified; the most frequently recognized were doctors, actors, guides, diplomats, barmen, entertainers, managers, translators, guards, cooks, firemen, salesmen, teachers, cleaners, and among those listed there were over 100 associations with waiters, psychologists, lifeguards and medical workers.

One of the aims of the psychological study was to draw attention to the fact that most of cabin attendant's workplace activity is carried out in a narrow space limited within the fuselage of an aircraft flying at high speed. The unfavorable factors of the working conditions have an adverse effect on psychophysical condition and health of cabin attendants. Among these factors there are: susceptibility to cosmic and solar radiation at flight levels above the troposphere, retaining cosmic radiation; sharp barometric changes during take-off and landing, or between airports which can be up to 150 mm Hg within a short period of time (for example, an airport located in the mountains in Katmandu, Nepal or in Amsterdam, Holland, which is located 4 meters below sea level); hypoxia (oxygen starvation); noise level over maximum standards is unfavorable to a cardiovascular and nervous systems; the reduced level of humidity in pressurized cabins (a reduction of 6-8% below the norm); the vibration of resonant frequencies of an aircraft, which can cause temporary deformation of organs and tissues. There also should be taken into consideration frequent and rapid changes in weather-climatic conditions issued by the geography of flights with changes in the time zones of up to 8 hours during the course of one flight. The stressful and conflict situations in passenger cabins and among crewmembers can lead to an accumulation of psychophysical exhaustion. These and other factors were the reason for placing a cabin attendant's occupation onto "List №1" of the professions with harmful or dangerous working conditions (State Labor Department of the USSR, 1960, 1974).

The following contradictions in a cabin attendant's labor have been revealed in the course of the study:

- 1) The contradiction between two leading functions of the work: the primary task, aim, and purpose of a cabin attendant's presence on board the aircraft are to provide passengers safety in emergency situations, yet in the working process the main responsibility is to serve and to take care of passengers. On the one hand, a cabin attendant shares responsibilities with other crewmembers in emergency and disaster relief situations,

acting as a medical worker or a fireman; on the other hand, cabin attendants act as waiters or waitresses and barmen. This contradiction requires a display of professionally important qualities that sometimes are polar opposite: sociability, attentiveness, gentleness, patience, fortitude, and at the same time leadership, responsibility, exactingness, persistence, harshness, strictness, etc.

2) The contradiction is reflected in the official job description (ICAO documents): a cabin attendant is a crewmember, though, at the same time, is not a member of a flight crew; yet the workplace activity of the cabin and cockpit crews is carried out within the same confined space, limited by the aircraft fuselage, and under identical conditions of professional life (work and rest routines, flight schedules, life in business trips, etc.), and, among others, susceptibility to unfavorable and psychogenic factors of flights.

3) The temporal contradictions are connected (a) with trans-meridian flights; (b) with the time difference between the flight points on route; (c) with the routines of work –to- rest regime in civil aviation, demanding flight schedules and the actual flight time and, in contrast, the complete uncertainty which can occur between flights, unexpected and unpredictable, affecting the work and rest planning; (d) the difficulty of adaptation to the rhythm of flights, which is a serious challenge to social and family life of an employee.

4) Human beings are borne not to fly but to live and work on the earth surface. However, when travels by air became regular, the occupation of a cabin attendant emerged. Working effectively under the existing conditions of temporal-spatial contradictions requires a cabin attendant to retain personal integrity, and an internal unity of spirit, soul and body.

5) There is a contradiction between the contents of a cabin attendant's labor, its psychological component and the image of the profession in society. Most people assume that this profession is easy and romantic, but in reality it is a physically demanding, life-taking job.

6) The contradiction connected with physical state and health of cabin attendants, when they have to fulfill functional duties inside and outside an aircraft, with constantly changing itineraries, differences in temperatures and seasons, extreme and frequent changes in climatic and weather conditions, while flying "from winter into summer, and from autumn into spring".

7) The contradiction connected with an emotional aspect of the work of cabin attendants is observed when, regardless of their emotional state caused by their prolonged and strenuous work in stressful conditions (suggesting a lack of co-ordination in the rhythms of sleep and vigilance, the failure of biorhythms, accumulation of physical and mental fatigue), cabin attendants are compelled to outwardly preserve and display dignity, amiability, charm, calmness, affability, etc. in a beaming smile. This is especially important in non-standard or emergency situations (turbulence, engine failure, depressurization, fire, etc.). Anonymous interviews with cabin attendants (1997, 2001) were to reveal emotional state before and after flights; the study showed some interesting results, described both in the dissertation and in the monograph.

8) Contradictions in the area of communications are revealed as follows. In the process of communication and interaction with people, flight attendants operate within two different ranges simultaneously: physical (intimate, personal, official, public) and psychical. Furthermore, cabin attendants holds communication in three systems: "cabin attendant – cabin attendant", "cabin attendant – cockpit crewmember", "cabin attendant – passenger". All three systems differ in quality from each other and have certain varieties within each. (There is a difference in communicating with a co-worker, a team-leader, or an instructor; there is also a difference in communicating with a VIP passenger, or first, business and economy class passenger. Communication with a captain, a navigator or a flight engineer can also differ). The difficulty is that a cabin attendant must simultaneously maintain several levels of communication, requiring ability for an immediate switch between different operating levels (in the subject-objective approach). That is why the expressions "a professional cabin attendant" and "a genius of communication" can be placed in a synonymic cluster.

9) Maldistribution of periods of activity in the working process, along with the stressful activity, interrupted by only short pauses, requires an ability to master the essential methods of self adjustment that make it possible to calm down quickly, to relieve stress, and to mobilize rapidly for subsequent activities.

10) There is a contradiction between strictly regulated specific working functions, prescribed by directive documents, rules and regulations, on the one hand, and the need and necessity to exercise a creative approach in the selection of ways and methods of fulfilling standard

procedures and of solving professional problems and conflicts, on the other hand. For that reason, the productive thinking and creativity are professionally important qualities, which shape a criterion of selection among applicants for the position of a cabin attendant.

11) A particular contradiction in cabin attendant's labor is the disagreement of job-related responsibilities with the requirements of real situations on board a plane. Statistically most of plane crashes (80%) take place during take-offs and landings – the most dangerous moments of the flight; therefore, it is important that all passengers are to remain seated with the seatbelts fastened and seat backs in an upright position until the “fasten seatbelt” sign is turned off. However, only 58% of the interviewed Russian cabin attendants remained at their stations when the aircraft gained the proper altitude after take-off; only 55% – remained at the station during descending; 25% – are not at the station with the seatbelts fastened during landing, and in the turbulent area, when the pilot turns on the “fasten seatbelt” sign. Objectively flight attendants cannot return straight away to their seats, since they must go through a number of set routines providing passenger safety. There are occasions when cabin attendants are to go against the procedures, particularly in emergency cases, for example, a passenger, having an epileptic seizure or dying in flight, or in case of fire, terrorists on board, depressurization, turbulence, etc. All these factors require personal, intellectual, and psycho-physiological characteristics, which not all flight attendants may possess.

These contradictions make difficult the essential tasks of psychological study, that it, (a) to create a psychological portrait; (b) to develop accurate terminology for profession description; (c) to frame a complex of psycho-diagnostic procedures for selection of applicants; (d) to develop an integral system of professional training.

There are some points to mention in conclusion.

1. A historical analysis of the development of the occupation shows that the working conditions underwent significant changes (these include stationary and portable equipment of the aircraft, the provision used in the service, the technology of passenger service, the number and contingent of passengers, emergency rescue means, the emotional – motivational sphere of work, the geography of the flights, and the status of occupation in society); in its principal functions, though, the content of cabin attendant's labor remains basically unchanged.

2. The psychological content of a cabin attendant's labor is revealed in a complex of emotional, executive, cognitive, motivational, and communicative components, taking into account the temporal-spatial characteristics of flight activity.

3. The workplace activity of a cabin attendant combines two leading functions differently directed: providing safety and passenger service on board an aircraft.

4. In the sphere of cabin attendants' professional values the following are of importance: financial gain (74%), opportunity to travel (66%), opportunity of communication (61.5%). The priorities of personal values include: health (90%), family (84.5%), and personal safety (66%).

5. Spatial peculiarities have been established: the working process takes place in a flight at high altitudes. The narrowness and closeness of space lays special demands on the movements of a cabin attendant, requiring precision and adroitness. The arrangement of the aircraft equipment requires a high level of planning of cognitive structures and an automation of the sensory-motor patterns of experience.

6. Synchronous actions and a clear coordination of the teamwork of cabin crewmembers, a high speed, and a strict rhythm of fulfilling working operations are characteristic of cabin attendant's labor.

7. Characteristic portraits of a professional cabin attendant, of an instructor, and of an air passenger were created for the first time. A senior flight attendant of a cabin crew (purser) and an instructor must reveal such personal qualities (character) that a regular cabin attendant might not necessarily possess (pedagogical, organizational, communicational, ability for leadership, and other abilities); this must be taken into consideration during the selection of personnel and development of professional career.

8. The system of professional selection of applicants for the position of a cabin attendant with different specialties was based on the analysis and synthesis of the psychological content of the occupation. Many new test situations, special questionnaires, and forms were created and successfully used in psycho-diagnostics of cabin attendants. Results of the description of the profession made it possible to improve the system of recruiting and professional selection.

9. Multidimensionality and complexity of cabin attendant's profession set limits on the application of the test procedures in psycho-diagnostics, these should be used as a support system for assessment of

applicants' professional suitability, since results of the tests have not yet revealed the personal characteristics significant in this occupation, they have a significant percentage of errors (25 to 40), and influence the professional biography of a person.

10. Introduction of the author's training programs, their content (lecture materials, professional education, practical situations) – all this was aimed at the development of innovative thinking; motivations of satisfaction with work. They have ensured an improvement in the level of professional training, emotional competence, and professionalism, which, in turn, contributed to an increase in both safety and quality of air passenger service, and as a result, improving the image of airlines.

11. The conducted analysis and synthesis of psychological content of cabin attendant's labor contribute to understanding of a cabin attendant's role on board a passenger aircraft and bring the study of this profession on a qualitatively new level. It is a real contribution to psychological science and, in particular, to the psychology of labor.

The issues indicated in the work described have prepared the ground for conducting further scientific studies, and can yield a means to be employed by practical psychologists in the area of the worldwide civil aviation.

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