

OPERATIONAL STRESS MANAGEMENT IN THE FRENCH AIR FORCE:

The medical and psychological support

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Summary:

BACKGROUND: Warfare is highly stressful, it is both cognitively and psychologically demanding. Pilots are required to give ever more of themselves in the battlefield environment. Despite advances in technology, the man himself remains an essential element in combat. The main objective of this monograph is to discover how to determine signs of operational stress during deployment, how to catch the switchover from positive to negative stress, and how to improve both early detection and the management of such stress.

METHODS: We propose a discussion about the principles of medico-psychological management, based on the current operational experience of the French Air Force, studying in particular the approach of French military psychiatrists. We do not propose to talk about human factor management.

RESULTS: The first person involved in operational stress management is the medical officer who supports the squadron in the combat zone. Before, during and after deployment, an appropriate crew-member support is necessary. The M.O. may rely on his/her extensive knowledge of operational stressors, missions, and combat personnel. The operational base and the home base in France remain in continuous contact with each other, and the M.O. is able to benefit from the support of the psychiatrists and psychologists of the Military Aeromedical Centre in Paris, the SMPCAA.

CONCLUSION: Modern combat is unpredictable; the possibility of an acute stress disorder must be considered when the pressures of the environment are strong. By identifying, preventing and treating operational stress we can provide an opportunity not only to improve flying performance, but also, perhaps, to improve pilots' mental health.

Key-words: French Air Force, aviators, operational stress, war psychic disorders, stress management, flight surgeon, military psychiatry.

We have committed our forces in Afghanistan. This means that we must have in operation a well-connected medical system which is able to treat without delay all physical injuries, and all psychological conditions. French military psychiatry has made every effort to put the combatant in premier place in this care system, before, during and after a mission. Full attention is given to the patient's mental and emotional life, to various factors in his/her environment, and to his/her personal setting in time, all of which can bring pressure to bear on his/her personal equilibrium. We could call this a psycho-dynamic perspective [1, 11, 13, 15].

1. Operational stress factors in Afghanistan

The feedback from our flying personnel helps us to pick out a combination of operational stress factors (stressors), an awareness of which is necessary to understand what happens during an emergency situation. Combatants are continually facing up to questions of life and death, for themselves or for others, as they participate in operational missions or base activities. Briefly, three factors can be isolated:

I.1 Pressures of flights and missions

Flights can be from three to eight hours long. A mission could include: waiting time; in-flight refueling; close air support; a show of force, with high-speed, low-level fly-past. During such missions, flying personnel can be subject to an enforced passivity – that is to say, they can not intervene to help troops on the ground, they can do nothing about the deaths which are a direct result of their combat activity. Flying personnel can find the legitimacy of their actions called into question, and in the various media they see exhaustive descriptions of collateral damage.

I.2 Hostile environment

Personnel are aware of threat from the ground and from the air during take-off and landing. There are rocket attacks on their base every day. There are the risks of capture and the difficulty of surviving after being forced to eject [4].

Plus there is the climate, with its summer temperatures of over 50°C / 120°F.

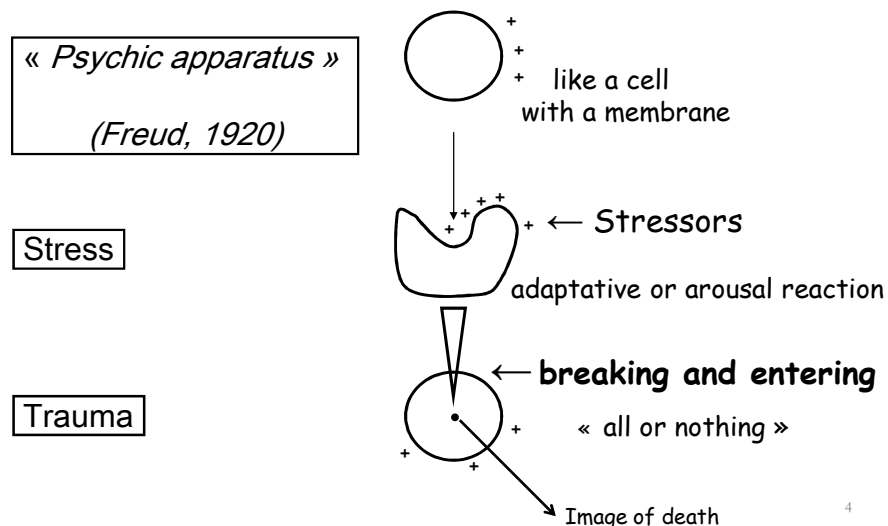
1.3 Operational availability and cumulative effects

An accumulation of stress effects may arise from the combination of: repeated missions, the concerns of family life, the increasing proportion of young pilots engaged on their first combat mission – and add to all that, the normal everyday worries.

2. Stress and trauma: a dynamic approach

For a better understanding of what is essential in operational medical-psychological support, it seems important that we should make a clear distinction between two often-confused phenomena, namely, stress, and trauma. International classification often reinforces the confusion between them, by using a terminology which is based on stress, that is, “acute stress” and “post-traumatic stress disorder” [5]. I propose to re-visit Freud’s 1920 work in *Beyond the Pleasure Principle* [6]:

STRESS and TRAUMA two different logics



2.1 The psychic apparatus

Freud compares the psychic apparatus to a cell within a protective envelope, a kind of membrane charged with a positive energy and able to repulse attacks from the outside [6].

2.2 Stress / combat stress [8]

When there is stress, an exterior stressor - combat activity, for example - exerts pressure on this membrane. The “living cell” is bent inwards, but nothing penetrates to its interior. The positive energy increases. All the combatant’s energy is made available in order that he should be able to remain alert, to evaluate danger, to control his/her fear, and to take the necessary steps to ensure his/her survival. When the pressure diminishes, the psychic apparatus regains its original form and continues to function as before, whilst nonetheless retaining awareness of the event in question.

Where combat stress exceeds the individual’s ability to cope, where the appropriate reactions to stress are overwhelmed, then acute mental problems are likely to arise.

2.3 Trauma [7, 11]

In order to understand the effects of trauma we must regard the nature of the causative, sudden, unforeseen event: an encounter with the reality of death, the possibility of one’s own death or of those one knows, a horrible way of dying. When faced with this prospect, the membrane of the psychic apparatus gives way. The image thrusts itself through, takes hold, and disrupts the subject’s mental functions. This intrusion takes the form of an experience of terror, of a severe mental shock: the peritraumatic dissociation is the only symptom recognized at present as a prediction of future post-traumatic stress disorder [15].

3. Operational stress: four occasions when risk is high

The USAF psychiatrist Jones has proposed four occasions when risk is high in an operational situation, taxing the capacity for both individual and collective reaction (collective reactions are not dealt with here today) [9, 10] :

3.1 At the start of a mission

Before a mission a wide range of reactions is observable (excited state / inhibition), in which the common denominator is a state of anxious anticipation.

3.2 Encountering the reality of combat

The “normal combat reaction” corresponds to the normal stress model (anxiety, and its classic neuro-physiological and behavioral associations). On the other hand, flying personnel may be brutally confronted with the real face of death: accidents, a member of the team killed right in front of them, an aircraft damaged and falling out of the skies, crew ejecting, and so on. Within a few minutes an “acute stress disorder” may occur, and may last for several days (but less than a month) with a perseverance of the scene by day and by night [5]. The mental and emotional impact of events of this kind can only be assessed in retrospect.

3.3 During a hard mission

Then, it is fatigue which appears very quickly during the two or three days of respite after the event, which can become total exhaustion if the mission continues for any length of time. In this case functional disorders arising from chronic stress will be felt: sleep, cognitive functions disturbances, loss of weight, addictive behaviors (eg coffee, tobacco), risk-taking, physical complaints, and so on. Much energy is expended when flying, especially at take-off and landing, and when flying blind.

3.4 The time of return

The fourth occasion suggested by Jones is that of the time after the event, the time of return and re-adaptation to “ordinary” life [10].

It is at this time that delayed trauma, PTSD can make itself felt, which is added a feeling of shame, of avoidance. However, less than half of potential patients (only 38-40%, in fact) ask for help, because they are worried about being stigmatized, and about the effect this could have on their career [15].

4. Practical consequences of undergoing treatment

The “flight surgeon” is the most important person in this operational environment [10, 13]. He or she has to think in terms of individual and collective safety, and of the maintenance of operational capability. He or she has the support not only of the Air Force’s medical and psychological center, based near Paris, and of the psychiatrist in the military hospital of the theatre, but also of the health supply chain, the chain of command, sports instructors, and possibly chaplains.

Here too we could distinguish different critical occasions, on a case-by-case basis: before, during and after a mission.

4.1 Before the mission: training and continuous medical selection

There are several different elements involved in mission preparation, for example: individual and collective operational training (team-building; pre-combat fitness training; training designed to maximize an individual's potential). There is also the program aimed at maximizing overall health (medical investigations to confirm combat readiness; medical briefings) and the all-important psycho-social preparation for flying personnel and their families (contact with spouses and partners and with children; facilities designed to ease the load of everyday life; provision of details of useful contacts).

At this stage we should be on the lookout for any intercurrent event, for any anxiety problems, whether manifest or latent (and in particular, any signs of PTSD relating to a previous mission), and for any changes to flying personnel's normal behavior patterns. Observation is indicated, to spot any signs of mental or emotional troubles which could endanger both the health of the member of flying personnel, and the safety of the mission. Sometimes it may be necessary to limit temporarily permission to fly or operational fitness until a re-assessment has been carried out by the medico-psychological service applied to aeronautics (SMPCAA) [13].

4.2 During the mission

After a serious incident, Salmon's principles are always relevant [12]: immediacy, proximity, prudence and simplicity (minimal use of psychoactive drugs). Informal meetings at the operational base (with its known weaponry, its comradeship and its familiar living conditions) are often good for ensuring an effective "transfer", helping the member of flying personnel to reassure himself or herself that medical and psychological support is available, and can be trusted.

The aim of immediate care, that is, within the first 12 or 24 hours, is to act on stress and anxiety in all their clinical manifestations: agitation, severe mental shock, neuro-physiological hyperactivity phenomena. Medical personnel should approach those who have the greatest problems, to cover any immediate psychiatric needs, and so to reduce pressure on the patient [11].

Combatants need clear and concise information. Their physical requirements for proper nutrition, rest period and living conditions need to be met. They need to be re-assured about their own safety and security. Medical personnel will take sufficient time to consider whether repatriation is the best option in each case.

Naturally the flight surgeon is able to confer with the team of two psychiatrists and five clinical psychologists based in the aeromedical center near Paris able to travel to bases world-wide [2, 4].

4.3 Managing operational stress: continuous preventive measures

Managing operational stress in a theatre of war implies a watching brief by various parts of the organization: the command structure, contact personnel and flight surgeon. Here we will not go into all of these measures, the psycho-socio-behavioral help available under the rubric “human factor”.

A flying officer affected by a potentially traumatic situation should be given all our attention. Possibly a period of time out, to return to normal sleep patterns, will allow him/her to recover his/her ability to adapt and to adjust (the membrane of his/her psychic apparatus regains its proper form). It is important to re-assure the pilot, to give him/her the time he needs. A short-term course of medication may be helpful: hydroxyzine or other rapid-acting hypnotic drugs may be considered, subject to a minimum period of six hours before flying, and to a previous suitability trial. An isolated problem with no effect on safety allows him/her to return to flying, with close support and as part of a well-defined project in which the pilot himself/herself is fully involved. His/her flight leader must also be part of this project, naturally under conditions of medical confidentiality.

An undesirable scenario is one where there is a problem which a young and inexperienced pilot seeks to minimize or to ignore. In this case his or her ability to continue on operational missions should be seriously questioned.

In this case real team-work is called for, involving the squadron and its sporting instructors who are able to help our pilots make a stand against anxiety phenomena, just like in the American military’s “buddy care” model.

4.4 Returning from combat

The return to home base is a crucial period. Combat personnel have been through such intense experiences that they need to re-connect, they have to re-establish contact with the routines of their professional life, and of their daily family life. They need to feel that their commitment is recognized, and the re-assurance from once again being part of their family is also tremendously important [2, 3, 10, 14].

Flight personnel will benefit from a medical check, and a listening ear, a few weeks after their return from a combat mission. Where the situation is not as it should be, where there are a number of difficulties in functioning (eg, chronic fatigue) it may be helpful to suggest some non-flying time, whilst the practitioner works with the pilot, helping to reduce such symptoms in a climate of mutual confidence [13].

Conclusion

Flight surgeons have several obligations at the same time, and may find themselves doubting their own ethics: on the one hand, the medical officer is responsible for his/her patients' state of health and for their combat readiness, and on the other hand he or she has a more general responsibility for pilots' flying competence, as well as for air safety. Because the medical officer is familiar with Air Force personnel, operations and organization, he/she is able to balance these conflicting needs. The medical officer's ready availability, and the fact that he/she is continuously engaged in gaining the confidence of those in his/her charge, are the keys to successful medical-psychological support in theatres of war. At any time he/she can call for help and advice from the psychological service of the aeromedical center, which has a psychological watching brief both in France, and via its contacts with operational units.

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