

MEMORANDUM ON OBSERVATIONS ON VOLUNTEERS FROM PENITENTIARY

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m: W.J.H. Butterfield  
Professor Everett I. Evans

In regard to your memorandum of December 10th, and our conversations of December 11th, you will remember we thought it advisable that I draw up a document concerning experiments with human volunteers.

*cf. memo.* This seems to me altogether right and proper, as I am the person to be held responsible for planning and carrying out the various series of observations made. It should first be recorded that the objective of the overall plan to use prisoner volunteers here was accepted as mutually beneficial to the State of Virginia authorities, the Penitentiary Officials and ourselves, + the Dept. I cannot speak for the benefits accorded the state officials etc., but I can say that without the original idea, and its being followed through, most valuable and important scientific information would have been denied us. I would therefore like to emphasize at the outset that the information derived from the trials with which I was concerned could not have been secured without the prisoner volunteers.

The following questions arise with regard to these observations.

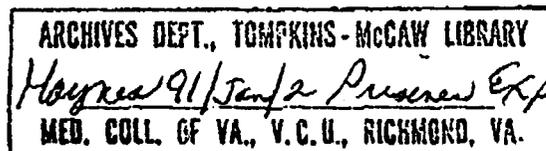
- i. Why did we need to use prisoner volunteers?
- ii. What procedures did they suffer, and why?
- iii. Were these procedures dangerous; a threat to life, or a threat to health?
- iv. What are the broader sociological implications of these trials?
- v. Security measures with prisoner volunteer trials.

These questions may be taken up in turn.

1. Why did we need to use prisoner volunteers?

The observations required could not be made on volunteers from the experimental group, because these people were needed, active, in the laboratory while the subjects were needed at rest in bed. The only remaining sources of volunteers were; medical students, patients or the general public. It was impossible to countenance using medical students, because the tests were of necessity conducted over many months, July - December 1951, and medical students could not be taken from classes over such a period of time. Furthermore, all the volunteers could not be housed at the same time during students' vacation without chaotic overloading of laboratory facilities and using all the burn unit beds. Those facts denied us the possibility of having used medical students.

Concerning patients being asked to volunteer, this may be dismissed immediately by pointing out that we needed healthy (not convalescent) subjects. Concerning using the general public as a source for volunteers, there



are several problems. The first is that the chances of getting fit young working men to take off four to five weeks from work, without pay, seemed remote; it is also contrary to national economic drives for production. The physical and dietary status of unemployed persons would be suspect. Thirdly, there was always the chance that volunteers from the general public might withdraw from the tests, and ruin the controlled conditions, due to business, illness in the family, or discontent. Previous experience has shown that volunteers from the general public are frequently idle people looking for kudos, who become unwilling subjects, although the procedures here were not serious, whenever outside distractions arise. This is only reasonable.

On the other hand, when the opportunity arose to volunteer, very many prisoners immediately asked to be considered, nor did any withdraw after the first groups returned to the penitentiary. Several men stated that "they expected to die", but "were willing to risk it", although, as will be shown, this fear was entirely ungrounded! The reasons that the prisoners volunteered must have been a mixture of desire for a change of routine, the desire for increased parole, and so on. Less materialistic considerations appear to be related to atonement and a desire to be of service. These questions will be considered in greater detail later.

2. What procedures did the subjects suffer, and why?

The volunteers were divided into three groups of four men. The first and second groups were subjected to bed rest, and repeated needles. They were also given a standard liquid diet and two of them received a new drug, 11 - 17 Hydroxy-corticosterone. However, it should be noted that this substance has been given to other normal persons and its properties are well defined. The very nature of the experimental procedures was such that all changes induced were made under constant surveillance, so that, had any profound, dangerous or untoward effects resulted, they would have been detected. Other subjects in this group received ACTH and others still received intravenous infusions of standard therapeutic solutions, saline and glucose. All these compounds are well known, safe, and well documented.

It may be asked why, if these substances had already been used, they needed to be studied again. This can be answered simply by saying that the exact combination of observations, all made at the same time, was unique. They were required to provide invaluable data on persons in bed, bandaged in the fashion of burned persons, BUT NOT BURNED. For how else should we separate the effects of bed and bandage on the one hand, and burn on the other, in evaluating identical observations made on burned subjects? (Note that, if sick people can sustain such observations without risk, why not the prisoners?) So, for reasons of comparison, the very large number of tests were made daily on these subjects using methods identical with those used for burned patients.

The second and third groups of prisoners also undertook to be burned (heat) when the above studies were complete. The burns were shallow and were of small extent. ( $\frac{1}{2}$ " diameter circles.) They were inflicted on the forearms. It may be remarked here that the investigator himself has inflicted larger and deeper burns on himself two years ago, in an earlier study. All the burns (except) were no worse than blister burns. They were treated with various well known and well tested therapeutic substances, which were tried here for the first time in the therapy of flashburns similar to those which might result from atomic bomb attacks.

Finally, various other information was derived from these trials. The subjects provided data regarding the palatability of liquid diets, and offered to test a new burn bandage, which test was required urgently by the Department of Defence.

3. Were these procedures dangerous to life or health?

It may be said that, although in their ignorance the men expected risks to their lives, actually none of the procedures in itself could have been dangerous to life. Complications dangerous to health were watched for carefully, none were seen.

By the time they were discharged from the study, all the prisoners were either completely recovered from their procedures or were progressing satisfactorily to the firm healing of their small forearm burns. The only hazards to health, therefore, are those of cigarette or hot fat burns, where the statistical chances of long term complications are far lower than injury on the roads or in places of work.

From the start, the writer recognized the risk of some unforeseen accident, a fall, a broken needle, an infected burn, but all these complications were averted.

In this section it is important to emphasize the positive side of the health question. Four prisoners had prophylactic dental care. One prisoner was provided with advice and therapy concerning a possible amoebic liver abscess, another was found to have evidence of early alcoholic cirrhosis, for which dietary advice was given and explained. Another prisoner asked for a check on his blood count, due to a strong family history of leukaemia; this was provided, and arrangements made for him to visit Doctor Watson James at intervals after his release. Another prisoner was investigated for syphilis, another for diabetes insipidus and yet another for early Van Recklinghausen's disease. Finally, one man with five children, expecting an early release asked for information about birth control; he was instructed and advised to speak to his own doctor on arrival home. It may therefore be said, with some justification, that the gains by the application of health care to these men far outweighed the hazards they faced.

4. The broader sociological implications of these trials.

Although the scientific inquiry involved here yielded some invaluable and in every case original information on old drugs and new agents, bandages etc., this was all concerned with a limited field of human endeavor. There were, overlying it all, broader social implications. Each group of men were addressed by the writer on admission to the ward and it was explained to them that, in our view, by volunteering for, albeit minor, suffering, they had shown initiative not only to help themselves but to help society. In so far as the latter point was continually stressed to them, it seemed that an important feature of rehabilitation was emphasized. Secondly, these men, granted that they were carefully selected, were able to show nurses, patients, doctors and orderlies, etc. by their demeanour and cooperative attitudes, that some men, after receiving punishment for their offences, have it in them to behave decently. This served to emphasize that this type of criminal need not be ostracised automatically by society, which would make their return to crime more likely. Contrary wise, it seemed important that, by the relationships they established with people brought into close contact with them here, that these men may perhaps have come to recognize that cooperation with society engenders good relations and fair treatment. (These were the points discussed with Professor Womack).

V. Security with prisoner volunteer trials.

A few words must be added concerning the problem of security in such trials as these. This naturally falls into several categories. If prisoners hear that they may volunteer, from the newspapers, and if they go from prison to hospital, then at least most of the prison inmates must know that the trials are underway. From time to time men discharged from jail can carry this information away. Secondly, the men selected have been those who were due for release soon, and several subjects are now "at large"; the reasons for their early release being noted at the Welfare Board. Other information "leaks" that the trials are going on include the patients on the wards at the time the prisoners are in hospital; these patients may talk to visitors during their hospital stay, or after their discharge from hospital. Furthermore, no one from doctors, nurses to orderlies outside the project have been sworn to secrecy: in fact such a move would be impossible and foolish because of the excitement it would engender.

Another feature of the security problem is the nature of the experiments. This can be concealed in part, but since the subjects must know the risks etc., they must know the form of the trials. In every case, the men have been asked not to talk about the nature of the experiments, though no doubt, they have told their cellmates the generalities of the affairs. Certainly, they signed no documents saying they wouldn't speak of their being volunteers. You will see later that I think such an oath might occasion

sadistic practices. Anyway it would be impossible for them to conceal the form of their participations from other prisoners, family, prison authorities etc. However, the detailed results of the trials, from the scientific point of view, are completely secure and naturally will remain so.

It seems to me that, regarding "security" in this type of experiment, one can only hope for security of results. That the trials are going on must now be known to thousands of people and to the audience of at least one radio program. It is my view that the best ways to circumnavigate any unpleasantness over these trials are — the least said the better, and the more emphasis on the sociological implications rather than experimental implications the better. My views about the overall guiding principle for conducting prisoner trials are referred to below. I believe those views meet any "unpleasantness" quite squarely.

### CONCLUSIONS

These trials, which yielded invaluable information on many subjects, were designed to minimize suffering and the risks involved were very small. The men knew that they could withdraw from the tests any time but they did not. Actually one man was released from jail during the final trial, but asked to have his release deferred to see the experiments through, despite his natural desire to return home to wife and children.

Based on my experiences, certain general points may be set down regarding our using prison volunteers for human trials.

- a) Although the men may expect high risks, the procedures should be explained to them, beforehand, and the actual risks made clear to them.
- b) They must always feel free to contract out of the trials.
- c) With the type of men so far selected, the importance of their behavior in influencing people towards a more pleasant attitude to a punished man can be stress from the outset, and is not without effect.
- d) One can only hope for security of experimental data in these trials. To demand any other security will only awaken curiosity. It is far better to be open about this type of experiment — see below.

However, no complete list of hard and fast general rules about any human volunteer experiments can be laid down. It is obviously best if the investigator has undergone the various procedures himself. But if the risks to life are high, the men must know it and be free to refuse the risks without loss of face. In every case, every attempt must be made to minimize suffering.

However, by far, the most important principle and aspect involved is the attitude of the experimenter. If he is sadistic, the results of prisoner volunteer trials could be catastrophic. If he is a sympathetic doctor, he will know within whether the demands he is making on his volunteers are justified. *This applies to all clinical research.*

The only cast iron suggestions I can make are these. All humans <sup>beings</sup> exposed to trials, dangerous or otherwise, can withdraw, and have a chance for protest. In any human experiment, the subjects must know the risks, and any human experiment must undertake to be open to inquiry and, if necessary, investigation. Here is a way to separate sadistic, humanistic experimentation.

Since the risks involved here were low, since the investigator himself had suffered all the procedures himself and since the gains were high, this investigator faces these trials with a completely clear conscience, nor does he fear any inquiry.

This memorandum is based on a progression of thinking over the last six months. If you agree, I would like a copy to be lodged in Colonel Wood's office, lest any difficulties arise for which I stand responsible after my return to England.

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B.M. H.R.P.