

KNOWLEDGE AND PERCEPTION OF PHYSICIANS REGARDING TELEMEDICINE TECHNOLOGY IN TRINIDAD AND TOBAGO

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INTRODUCTION

Telemedicine is an unexplored practice that has received advocacy due to technological advancement and social distancing regulations imposed due to Covid-19. According to the W.H.O¹ 50% of its member states have implemented a national telemedicine policy, stimulating the question “Why hasn’t Trinidad and Tobago introduced a structured and stable telemedical service?” To investigate this, we target experienced physicians to understand the benefits and limitations of adapting telemedical technology into the current medical model. Utilization of Telemedicine in developing countries, like Trinidad and Tobago, is very promising as it can improve healthcare accessibility and elevate the quality of care for potential patients in rural areas.

OBJECTIVE

- The overall effectiveness of telemedicine throughout Covid19 and the potential opportunities for continual care through this medium.
- If the promotion and management of the telemedicine service can be maintained by less developed countries.
- If telemedicine can be economically beneficial, convenient and enable effective client/patient relations.

METHODOLOGY

Study Design- An institutional-based cross sectional study was conducted which utilized purposive sampling.. Final year M.B.B.S students and currently registered clinical staff of F.M.S both have insight of working in the medical field and were chosen as they can provide a better perspective of telemedicine implementation. Online questionnaires were distributed for participants’ anonymity to be secured. This ensured data protection and allowed for honest participation which led to more accurate results. Questionnaire included open-ended and close-ended questions which allowed additional information and explanation in order to gain a greater perspective of research.

Ethical approval- was received from the ethics committee and the campus registrar of U.W.I, St. Augustine, Trinidad & Tobago

Study Population- A calculated sample size of 170 participants was generated but the study only received 87 responses.

Data Analysis- Data analysis and interpretation were completed via SPSS program, version 27.

Data Protection- All responses from the questionnaires were entirely confidential and data collected was kept private.

RESULTS

Table : Influence of telemedicine on Patients’ health status

	Frequency	Percent
Improved health	65	74.7
No change	5	5.7
Negative effects on health	17	19.5
Total	87	100.0

Figure Showing the Perception of Quality of care delivered by the telemedicine service compared to the quality of traditional care

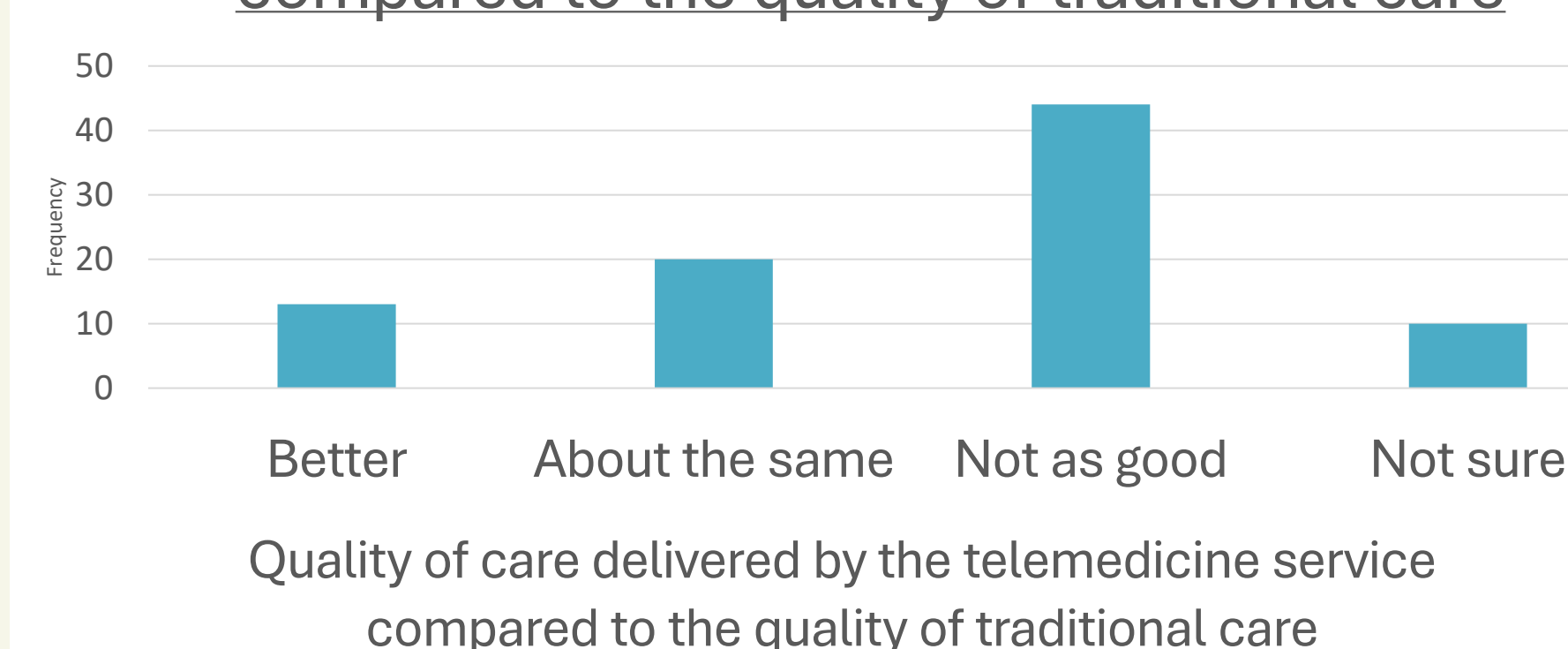


Figure Showing If telemedicine reduce the occurrence of white coat syndrome

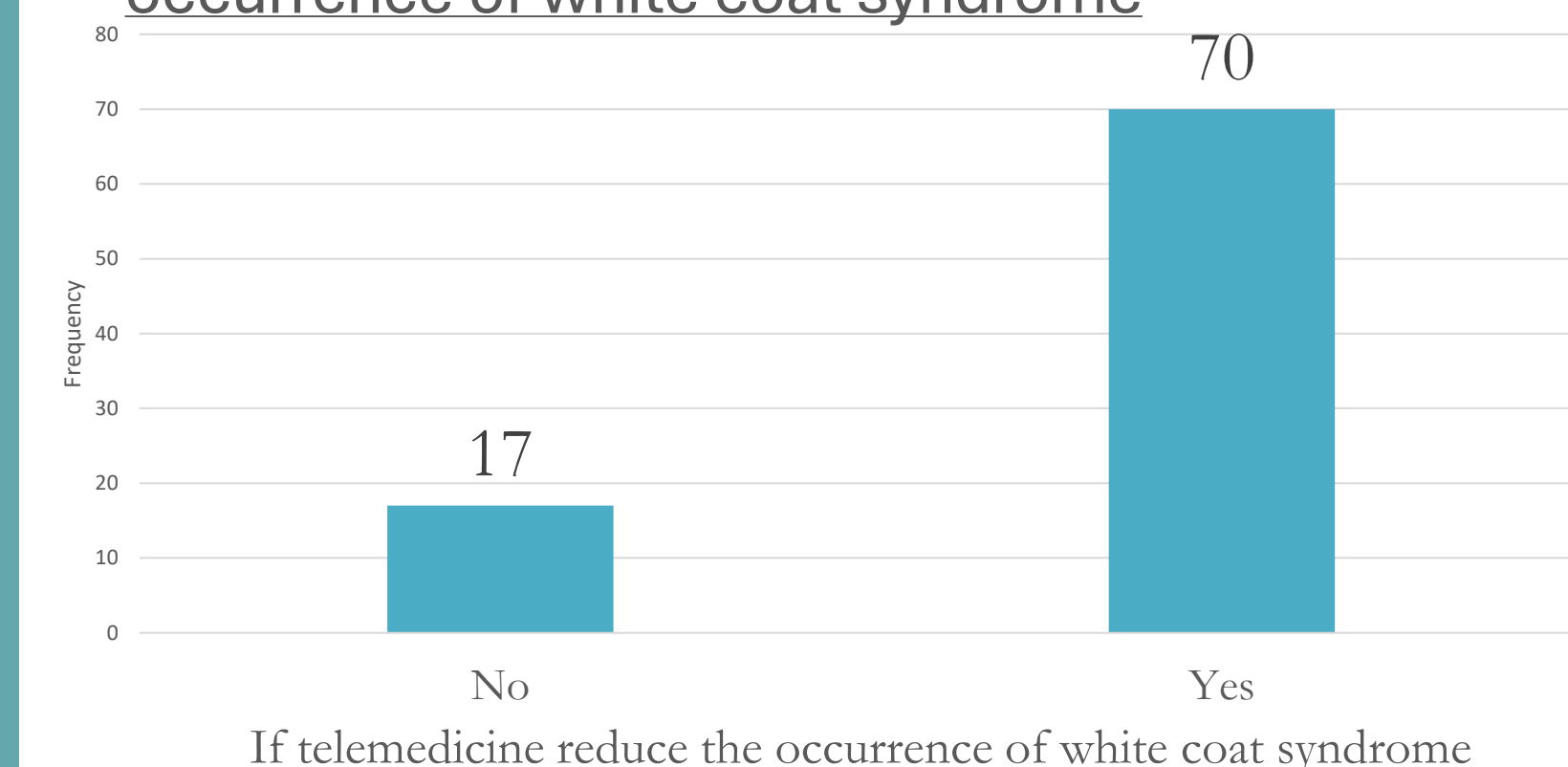


Table Showing Perception on Difficulty of Lack of Technological Access

Response	Frequency	Percent
No	5	5.7
Yes	82	94.3
Total	87	100.0

Figure Showing the Perception of the Difficulty of Mental Effort on patients to utilize telemedicine

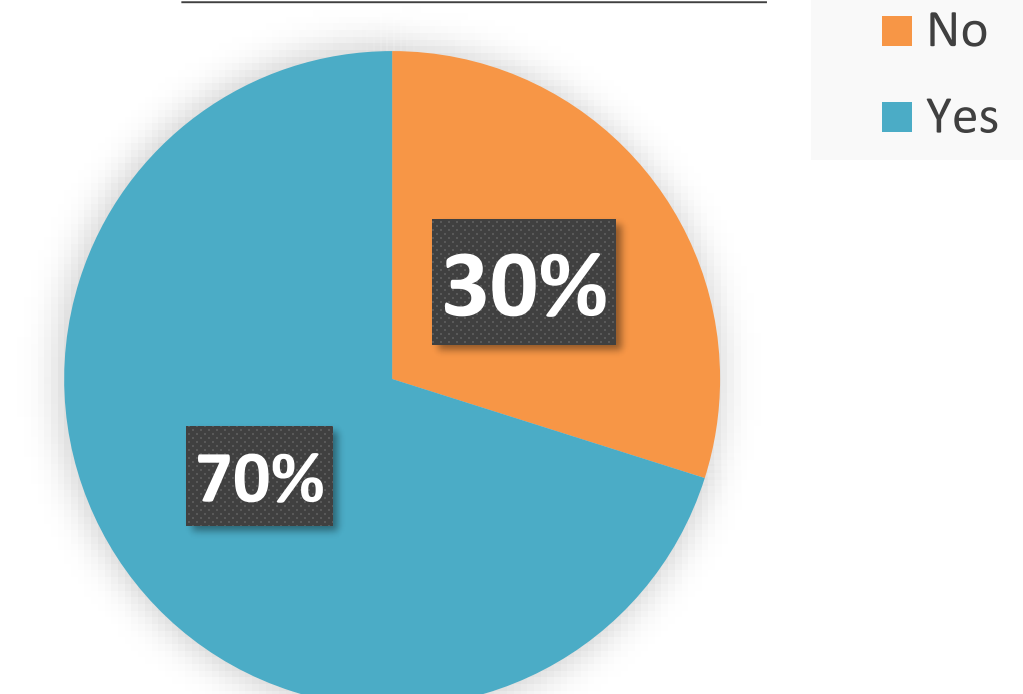


Table Showing Perception on Difficulty of Limited Finances to Support the Telemedicine

Response	Frequency	Percent
No	15	17.2
Yes	72	82.8
Total	87	100.0

Figure Showing If telemedicine would improve patients access to healthcare services

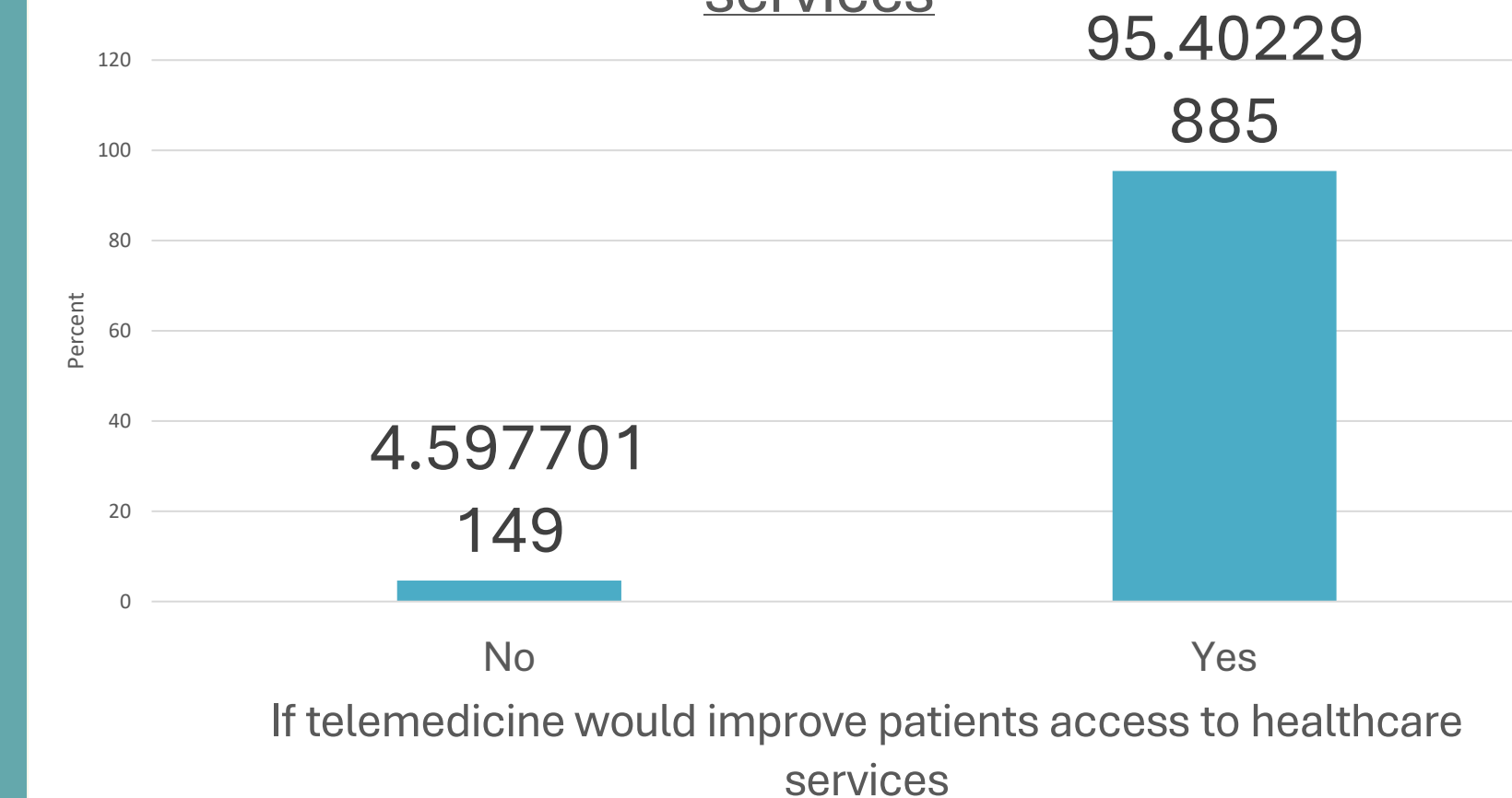


Table Showing if telemedicine would lead to a reduction in medical errors

	Frequency	Percent
No	29	33.3
Yes	58	66.7
Total	87	100.0

Figure Showing Responses on If telemedicine in Trinidad and Tobago will reduce the load on our healthcare system

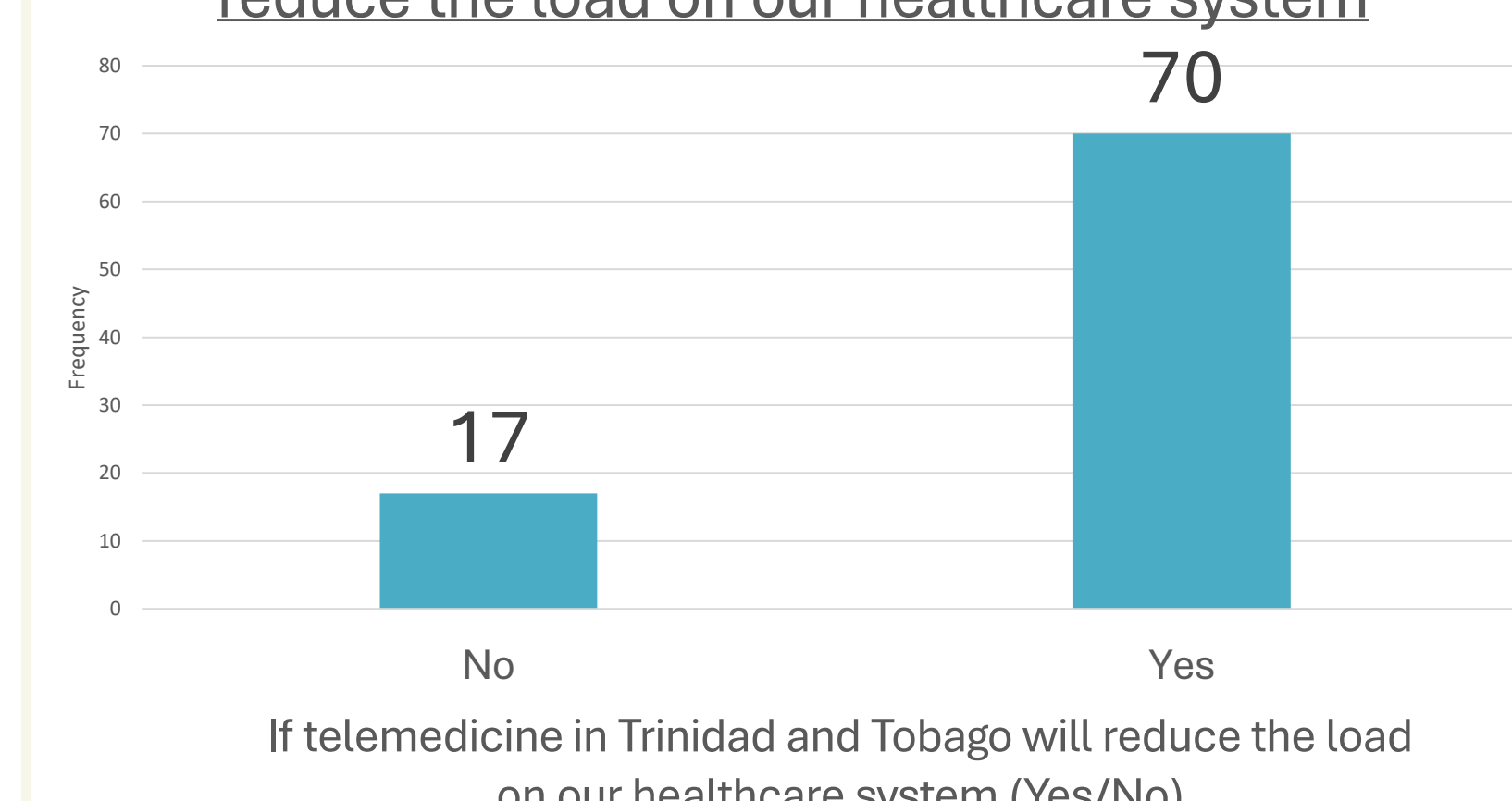


Table Showing: Telemedicine encourages patients to express themselves more freely.

	Frequency	Percent
No	16	18.4
Yes	71	81.6
Total	87	100.0

DISCUSSION

- Telemedicine is a suitable healthcare method for T&T.
 - The majority of respondents showed a positive attitude towards its utilization regardless of their healthcare experience. This is paralleled in a study published in the Puducherry Region of India² relayed that even respondents with limited knowledge in the field had positive attitudes towards the concept.
- Telemedicine is an effective healthcare option during the COVID 19 pandemic.
 - It allows for contactless visits, and easier communication with patients. However, the quality of clinical decisions may not be necessarily improved.
- Telemedicine is cost effective and convenient for patients.
 - This study found that telemedicine would improve patients’ access to health care and be time saving and cost effective. Being at home reduces the occurrence of white coat syndrome, allowing for more accurate diagnosis. A study done in Karachi, Pakistan³ showed that respondents viewed telemedicine to be efficient in providing healthcare to underprivileged and remote areas as well as beneficial in reducing preventable transportation expenses and time.
- Main barriers in telemedicine implementation were found to be limited finances and technological difficulties.
 - Telemedicine requires stable internet and electricity. The pandemic also poses economic strains on developing countries.
- There is uncertainty about whether telemedicine would reduce workload.
 - This study found that telemedicine would reduce the occurrence of medical errors as it allows for more organized storage of medical files which would allow for effective communication between healthcare providers.
- Telemedicine would allow for improved health outcomes.
 - Respondents concluded that telemedicine utilization encourages better and easier clinical monitoring of patients via technology and hence better systematic treatment and management allowing for a healthy interpersonal relationship between physician and patient.

CONCLUSION

As telemedicine implementation increases globally it is important to examine its viability for use in developing countries as well as the perspectives of healthcare professionals residing in these countries on its implementation. Understanding the effectiveness of telemedicine during the current COVID-19 pandemic and its potential for post-pandemic use is also crucial. This study found that it would be particularly difficult for developing countries to implement telemedicine technology due to various social and economic challenges. However, developing countries would benefit if they can successfully implement telemedicine as it can solve the dilemma of providing adequate healthcare access to geographically isolated and rural communities. Ultimately, telemedicine implementation may prove difficult but has the potential to preserve and even improve the quality of patient

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