

# Presenting Powerful Posters

## Poster properties

- Posters and oral presentations have equal scientific and academic value
- Posters ensure visual communication throughout the conference
- E-posters offer the advantage of multi-media inclusion
- Posters offer an excellent opportunity for networking

## Problem and Process

What are the attributes of an effective and powerful scientific poster?

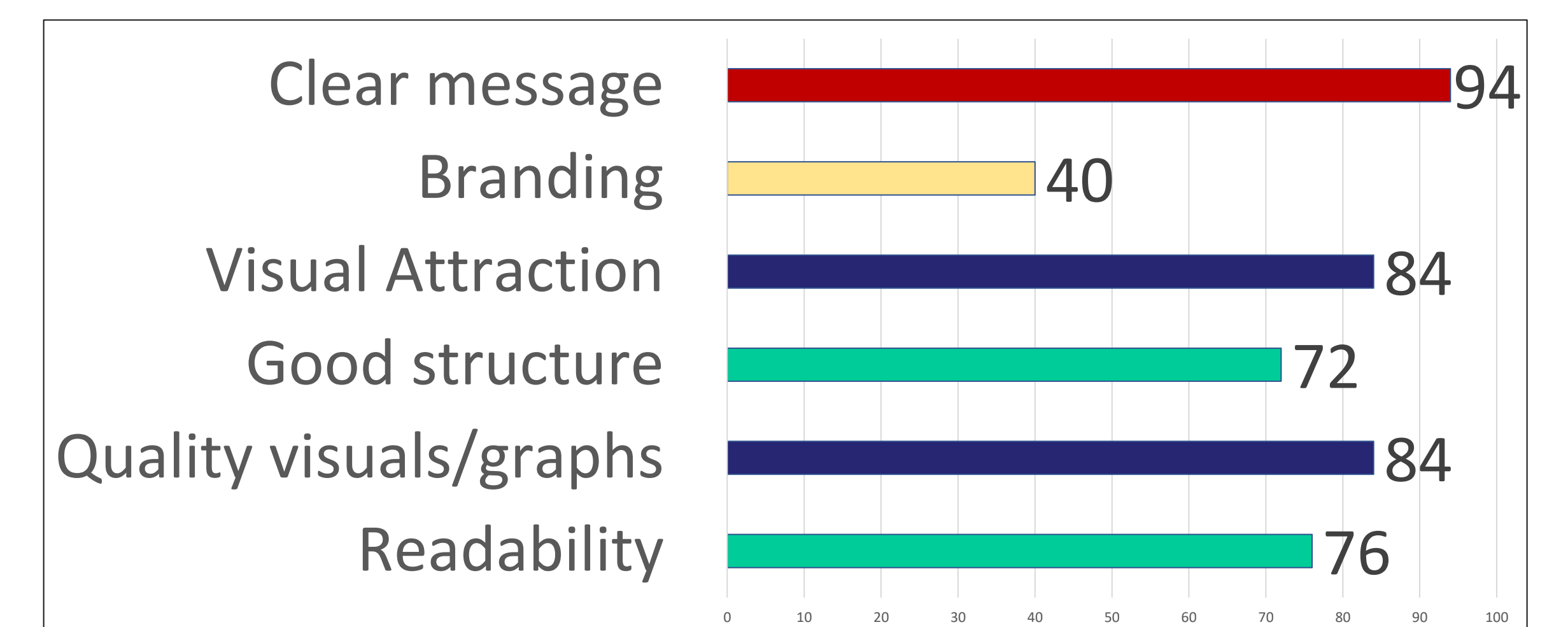
- 10 Experts in poster assessments
- Opinions on assessment
- Evaluation of 4 purposefully designed posters with
- A validated poster assessment tool
- Voluntary participation and ethics approval

## Professional findings

What attracts you to a poster?



What do you consider most important in a poster?



### #FEESMUSTFALL2016: PERCEIVED AND MEASURED EFFECT ON CLINICAL MEDICAL STUDENTS

Hanneke Brits and Johan Botes  
Department of Family Medicine UFS

#### BACKGROUND

In mid-August 2016, the Minister of Higher Education announced a maximum fee increase of 8% for universities. University students at most universities participated in the #FeesMustFall campaign. #FeesMustFall resulted in violent protests and the eventual closure of most SA universities towards the end of 2016.

Medical students are under immense academic stress. Campus unrest can contribute to stress and influence academic performance, social behaviour, emotional stability and financial exposures.

#### AIM

To determine the perceptions and measured effect of the #FeesMustFall protest on the 2016 3rd-year undergraduate medical students at UFS who experienced physical test disruption and temporary interruption of classes and clinical training.

#### Specific objectives were:

- (i) to assess the perceptions of students regarding the effect of the protests on academic performance, social behaviour and financial exposures;
- (ii) to determine the presence of post-traumatic stress disorder (PTSD) after students experienced violent and physical test disruption using a validated post-traumatic stress tool; and
- (iii) to measure the effect of #FeesMustFall on academic performance by comparing end-of-year examination marks with marks of students not affected by protests.

#### MATERIAL AND METHODOLOGY

To address the study objectives, the project consisted of two phases. In phase 1, a descriptive study was performed to gather students' perceptions of the effect of #FeesMustFall, and screening for PTSD took place. In phase 2, the examination marks of students affected by #FeesMustFall were compared with those not affected by #FeesMustFall.

#### Phase 1: Student perceptions

##### Study population and sampling

The study population consisted of 138 medical students who were in their 3rd year in 2016 at the UFS Bloemfontein campus. This class was selected because they experienced physical test disruption and violent behaviour at a university venue.

##### Measurements

The perceived effects of the protest were measured using voluntary anonymous self-administered questionnaires. The first part of the questionnaire gathered demographic information. This was followed by 35 statements on the perceived effect of the protests on academic performance, finances and social behaviour, as well as students' attitudes to the UFS management, the protest in general, and the stress experienced.

The last part of the questionnaire included a validated PTSD screening tool developed by Brewin et al (2002). The screening tool consisted of 10 questions and according to the instructions, a score of 18 was considered positive for PTSD.

The study was performed in the second semester of 2017 after ethical and UFS permission had been obtained.

#### Phase 2: Comparison of student marks

##### Study population and sampling

The study population consisted of the 3rd-, 4th- and 5th-year medical students at UFS who took part in the end-of-year assessment during 2015, 2016 and 2017, respectively.

##### Measurement

The marks of the 2016 3rd-year students were then compared with the 3rd-year marks of the 2015 and 2017 students. The 4th-year marks of these students were also compared with the 4th-year marks of the 2015 and 2016 students.

#### Data analysis

Data were filed in an Excel 2016 spreadsheet (Microsoft USA) and double-checked for errors. The Department of Biostatistics, Faculty of Health Sciences, summarised the data using frequencies and percentages (categorical variables) and mean (age).

#### Ethical considerations

Ethical approval to conduct the study was obtained from the Health Sciences Research Ethics Committee of UFS (ref no. HRREC-24/2017). Approval to include students and use student marks was granted by the appropriate authorities of UFS. No person was identified as the questionnaire were anonymous and only student numbers were used for the mark comparison. A psychologist was available to assist students who experienced high levels of stress during questionnaire completion.

#### RESULTS

##### Phase 1: Students' perceptions of the effect of #FeesMustFall and results of PTSD screening

A total of 120 students completed the questionnaire. The student response rate was 87.2%, with an equal distribution between males and females. Student ages varied between 20 and 25 years, with a mean of 22 years.

Statement	%
Did not see with additional security presence	61.4
Did not see with disruption of the day	69.1
Found no occurrence of #FeesMustFall	70.7
Experienced physical test disruption during test disruption	86.1
Experienced interruption of classes	86.1
Did not protest for purposes of protest	29.2
Exposed to the protest	11.4
Did not protest for reasons for doing it	31.2
Did not see health response at all	30.4

##### Effect of the protest on academic performance

##### Behavioural changes of students due to protest

##### Results of PTSD assessment

Using a validated post-traumatic stress disorder (PTSD) screening tool, 12.7% of the affected students screened positive for PTSD after the test disruption. This is much higher than the world figure of 7.8-8.2% in populations exposed to a traumatic event. Due to the high stress levels, a clinical psychologist was appointed in the School of Medicine, UFS, to support the students.

Year	Mean %	2015	2016	2017	t-value
		Mean %	Mean %	Mean %	
3rd year	Mean %	64.4	63.2	64.7	0.10
	Failure %	5.2	6.7	3.4	0.69
4th year	Mean %	67.3	68.0	67.1	0.37
	Failure %	1.9	1.9	5.9	0.14

#### DISCUSSION

The response rate of 87.2%, equal gender split and age distribution are all in line with what was expected for the group of medical students, and generalisability of results is therefore possible.

Despite many efforts on the part of the university, three-quarters of the students felt that the protests had a negative effect on their academic performance. Although the School of Medicine continued with learning despite the closure of the rest of the university, alternative and adapted measures were put in place.

Although the protests did not have a major effect on smoking, a third of the students continued to consume more alcohol and 40.0% experienced changes in sleeping patterns. Both alcohol consumption and changes in sleeping patterns can negatively affect academic performance through the direct effect on memory, decreased motivation and less time to spend on studies. Behaviour changes during protests are not unique to our setting, as various studies have reported that protests contributed to behavioural changes and increases in alcohol consumption. Higher alcohol consumption may also contribute to increased financial expenditure.

No negative effect of the protests could be demonstrated from the student marks, although 74.0% of students felt that the protests had a negative effect on academic performance. A negative effect on academic performance has been reported in other studies, but all were self-reported ones.

Stress does not necessarily affect cognition negatively, and academic performance may even improve with moderate added stress [8].

#### CONCLUSION

Reported negative behaviour changes occurred, with 31.9% of students reporting increased alcohol consumption and 40.0% reporting changes in sleep patterns. Both these factors may have a negative effect on academic performance, although it was not demonstrated.

Although 74.0% of students claimed poorer academic performance due to the protests, this could not be proved by comparing examination results with those of students not affected by protests.

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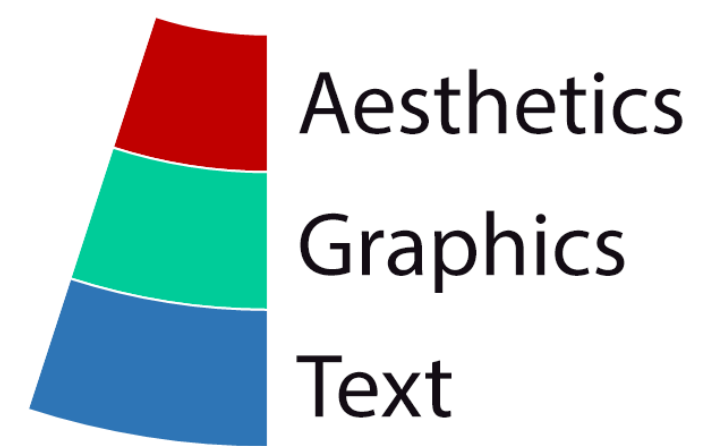
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## Power points

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- Give them a balance between text, graphics and aesthetics
- Leave them with a clear message



Use the QR code to assess the posters via the validated tool

Johan Botes and Hanneke Brits



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## THE KOVSIE News

Editors: Hanneke Brits  
Layout Editor: Johan Botes  
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August 2018

### #Feesmustfall2016: The effect on medical students

What is it all about?

During September and October 2016, the #FMF2016 protests followed the minister of Higher Education's announcement of an 8% fee increase for Higher Education Institutions. Soon after, violent protests and the eventual closure of most institutions were seen.

This article aimed to detect the perceived and measured effect of #FMF2016 on medical students at the University of the Free State (UFS). Third-year students were questioned as they experienced physical disruption in their classes and a test.

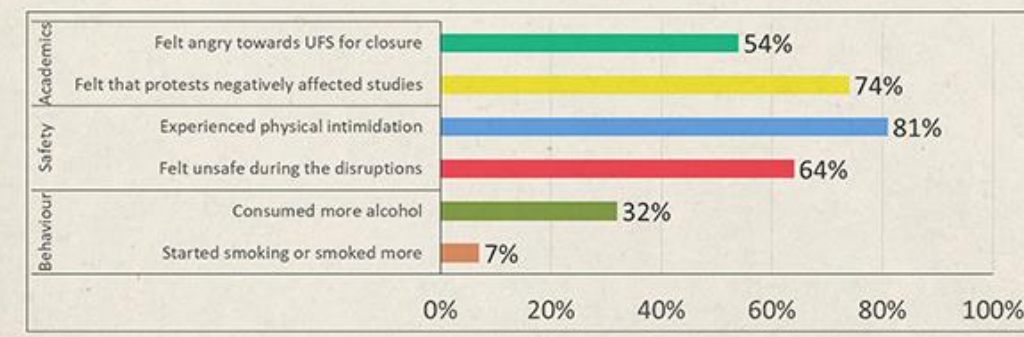
Firstly, 120 out of 138 affected students completed voluntary anonymous questionnaires. Opinions regarding academic performance, behaviour changes and stress levels were gathered. The students also completed the Brief Post-traumatic stress disorder (PTSD) screening assessment. Secondly, the academic performance of these students was compared with students not affected by #FMF2016.



Protests disrupted study at UFS during #FMF2016 Photo News24

#### 120 Medical students expressed their views

Protesters violently disrupted a test of the 3<sup>rd</sup> year medical students during #FMF2016. Due to safety reasons some classes and training were interrupted or suspended. However, clinical training continued at off-campus venues and hospitals. The figure below indicates how 87% of the class that responded felt about the #FMF2016. Student safety was a major concern for everybody.



Opinions of students regarding the effect of #FMF2016 on academic performance, stress levels and behaviour

#### Little evidence for student perceptions

Although 74% of students claimed that the #FMF had a negative impact on their academic performance, there were no statistical difference between the marks that they obtained in the examination compared with other years not influenced by #FMF2016.

	2015	2016	2017	p-value
3 <sup>rd</sup> year	Mean % 64.40	63.20	64.70	0.10
	Failure % 5.20	6.70	3.40	0.69
4 <sup>th</sup> year	Mean % 67.30	68.00	67.10	0.37
	Failure % 1.90	1.90	5.90	0.14

Comparison of marks for the different calendar years

Read the full research report here:



#### Alarming high PTSD

Using a validated post traumatic stress disorder (PTSD) screening tool, 12.7% of the affected students screened positive for PTSD after the test disruption. This is much higher than the world figures of 7.8-9.2% in populations exposed to a traumatic event.

Due to the high stress levels, a psychologist was appointed in the School of Medicine, UFS, to support the students.

Ref: Epidemiology of post traumatic stress disorder prevalence, correlates and consequences. *Curr Opin Psychiatry* 2015; 28(6): 307-311

#### Experts concluded

Two leading researchers from the UFS, Prof Hanneke Brits and Prof Gina Joubert made the following conclusions on the effect of the #FMF2016 on medical students:

Although students claimed poorer academic performance and confessed to more alcohol consumption, actual academic performance was not affected by #FMF2016.

However, a high 12.7% of students experienced PTSD after physical class disruption.

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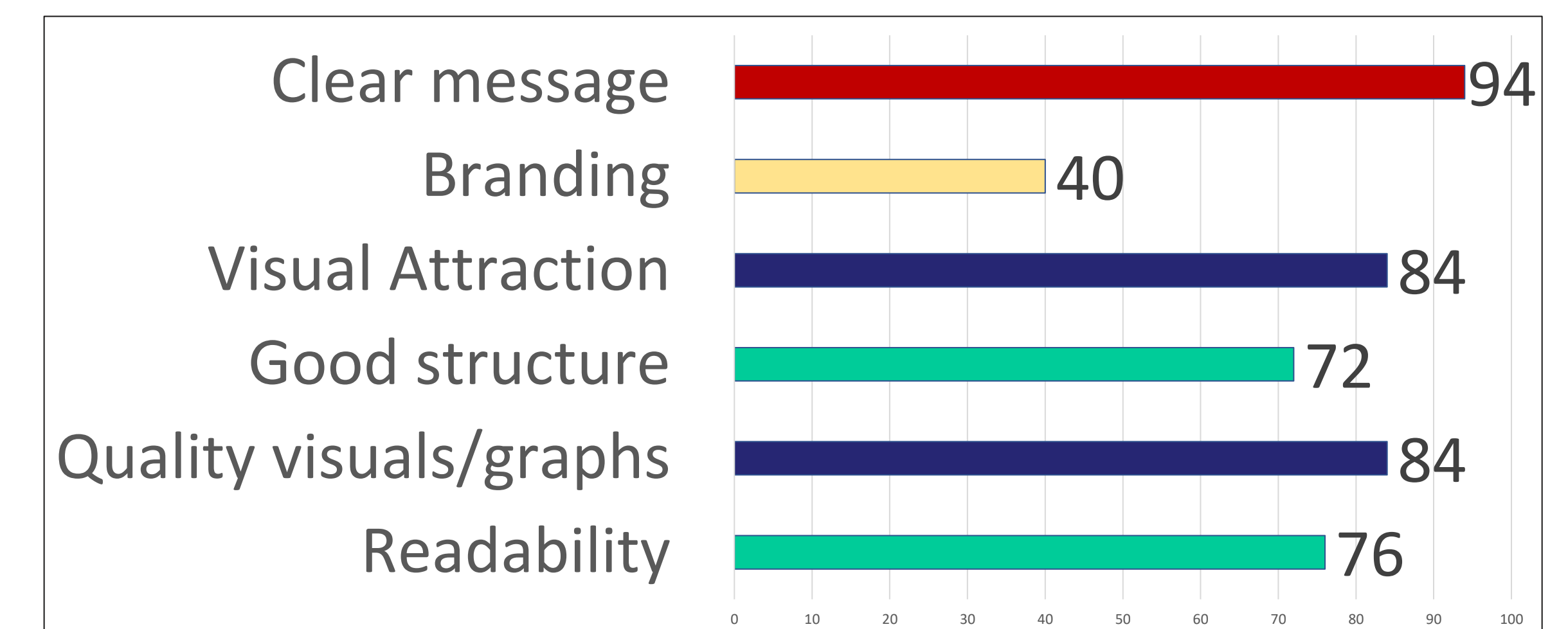
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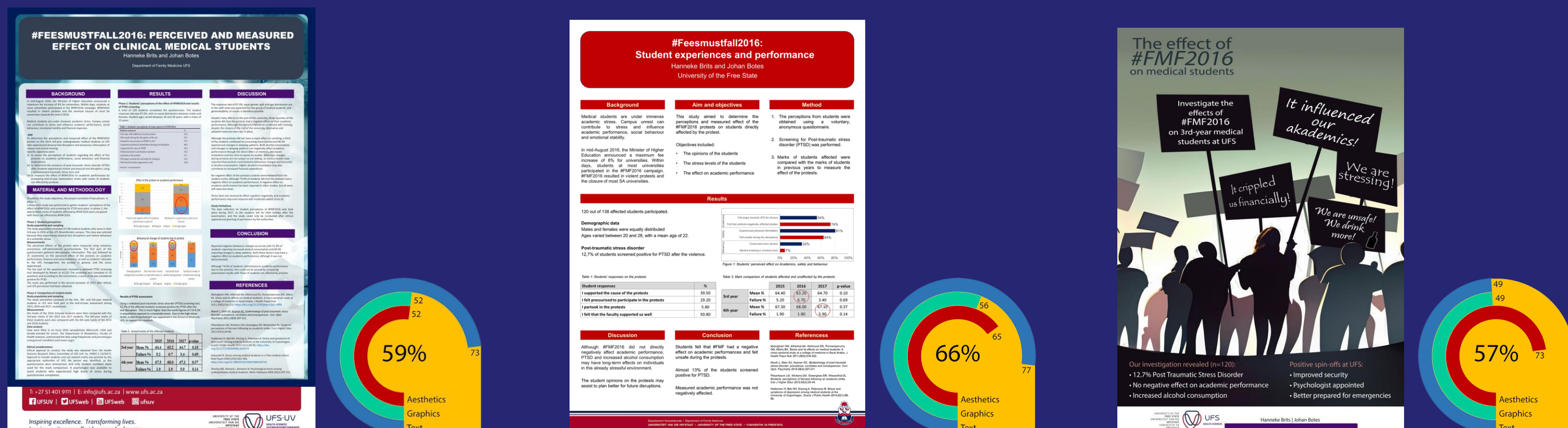
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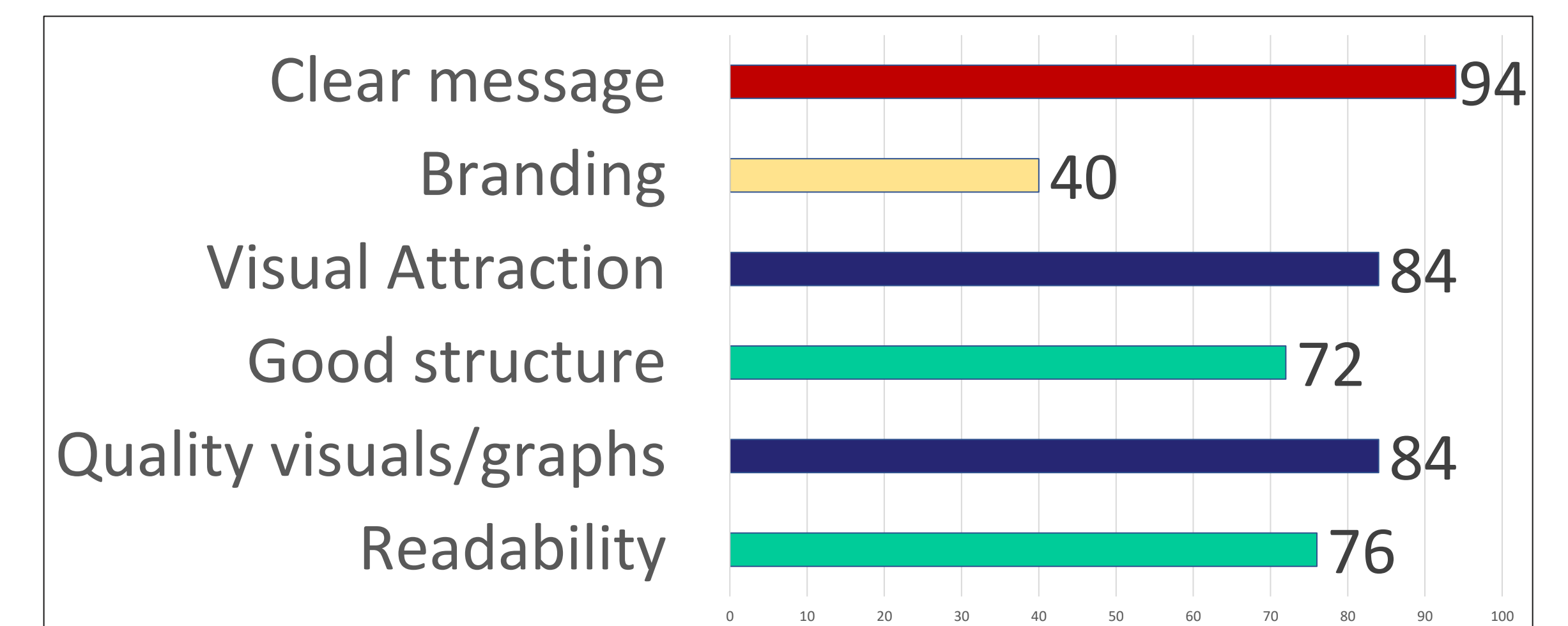
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### #Feesmustfall2016: Student experiences and performance

Hanneke Brits and Johan Botes  
University of the Free State

#### Background

Medical students are under immense academic stress. Campus unrest can contribute to stress and influence academic performance, social behaviour and emotional stability.

In mid-August 2016, the Minister of Higher Education announced a maximum fee increase of 8% for universities. Within days, students at most universities participated in the #FeesMustFall2016 campaign. #FeesMustFall2016 resulted in violent protests and the closure of most SA universities.

#### Aim and objectives

This study aimed to determine the perceptions and measured effect of the #FeesMustFall2016 protests on students directly affected by the protest.

Objectives included:

- The opinions of the students
- The stress levels of the students
- The effect on academic performance

#### Method

1. The perceptions from students were obtained using a voluntary, anonymous questionnaire.
2. Screening for Post-traumatic stress disorder (PTSD) was performed.
3. Marks of students affected were compared with the marks of students in previous years to measure the effect of the protests.

#### Results

120 out of 138 affected students participated.

##### Demographic data

Males and females were equally distributed  
Ages varied between 20 and 28, with a mean age of 22.

##### Post-traumatic stress disorder

12.7% of students screened positive for PTSD after the violence.

Effect	Percentage
Felt angry towards UFS for closure	64%
Felt that protests negatively affected studies	74%
Experienced physical intimidation	81%
Felt unsafe during the disruptions	84%
Consumed more alcohol	32%
Started smoking or smoked more	7%

Figure 1: Students' perceived effect on Academics, safety and behaviour

Year	Response	2015	2016	2017	p-value
3rd year	Mean %	64.40	63.20	64.70	0.10
	Failure %	5.20	6.70	3.40	0.69
4th year	Mean %	67.30	68.00	67.10	0.37
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Table 1: Students' responses on the protests

Student responses	%
I supported the cause of the protests	39.50
I felt pressurised to participate in the protests	29.20
I partook in the protests	5.80
I felt that the faculty supported us well	50.80

#### Discussion

Although #FeesMustFall2016 did not directly negatively affect academic performance, PTSD and increased alcohol consumption may have long-term effects on individuals in this already stressful environment.

The student opinions on the protests may assist to plan better for future disruptions.

#### Conclusion

Students felt that #FeesMustFall2016 had a negative effect on academic performances and felt unsafe during the protests.

Almost 13% of the students screened positive for PTSD.

Measured academic performance was not negatively affected.

#### References

Abdulghani HM, Alkhatib AA, Mahmoud ES, Ponnamparuma GG, Alkhatib EA. Stress and its effects on medical students: A cross-sectional study at a college of medicine in Saudi Arabia. J Health Popul Nutr 2011;29(5):516-22.

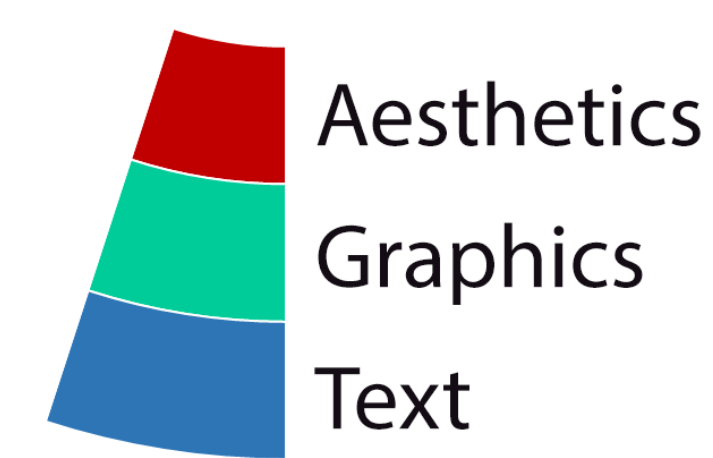
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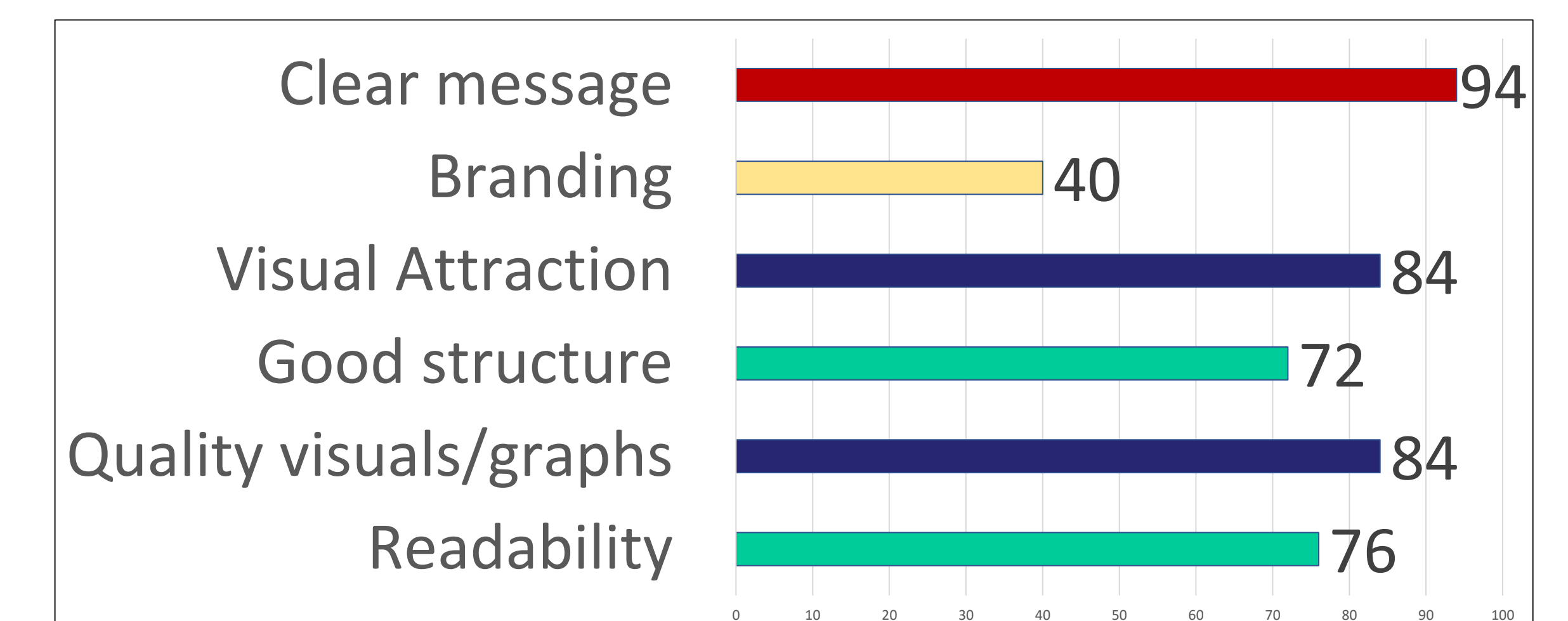


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The effect of #FMF2016 on medical students

Investigate the effects of #FMF2016 on 3rd-year medical students at UFS

It influenced our akademics!

We are stressing!

We are unsafe! We drink more!

It crippled us financially!

Our investigation revealed (n=120):

- 12.7% Post Traumatic Stress Disorder
- No negative effect on academic performance
- Increased alcohol consumption

Positive spin-offs at UFS:

- Improved security
- Psychologist appointed
- Better prepared for emergencies

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UFS HEALTH SCIENCES

Hanneke Brits | Johan Botes