

# AN APPRAISAL OF THE COLOUR OF HOSPITAL WARDS ON THE RECOVERY ATTITUDES OF PSYCHIATRIC PATIENTS

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## ABSTRACT

The environment where psychiatric patients are kept has been identified as an aid to their recovery attitudes. Based on the fact that the patients were being treated by qualified hands, an attempt is made to examine the significance of colour of the psychiatry ward environment as relating to the patients' rehabilitation in this paper. Number of patients admitted for psychiatric problem and those recovered (from the illness) and discharged in five psychiatric hospitals randomly selected from the western part of Nigeria were collected for a period five years (1995 – 2000). Among other things collected was the colour of the ward where the patients were kept for treatments. The data were analyzed using Statistical Package for Social Sciences (SPSS 10.0). Results showed that out 3125 patients admitted 73.3% of them recovered, of which 26.3% came from green, 37.6% from blue, 5.1% from neutralized yellow and the remaining 4.3% from white colour. Furthermore, it was observed that 93.8% of the patients kept under green, 93.9% under blue, 29.1% under neutralized yellow and 30.1% under white colour recovered from the illness. There is association between the recovery attitudes of patients and the different colours ( $P$ -value  $< 0.001$ ). The strength of the relationship is also significant ( $P$ -value  $< 0.001$ ). When the colours were grouped in two, namely dull (green and blue) and bright (neutralized yellow and white), out of the 73.3% that recovered 63.9% came from dull and the remaining 9.4% from bright colour. In addition, we observed that 93.9% of the patients kept under dull and 29.5% under bright colour recovered from the illness. The association between recovery attitudes and the different colours is still evident ( $P$ -value  $< 0.001$ ) and that the strength of the relationship is also significant ( $P$ -value  $< 0.001$ ). Consequently, the dull colours have a better positive influence on the recovery attitudes of psychiatric patients.

**KEY WORDS:** Psychiatric patients, Psychiatry ward environment, Colour therapy, Recovery attitudes.

## INTRODUCTION

Psychiatry is a medical specialty concerned with the prevention, diagnosis and treatment of mental illness or mental disorder (Odejide 1985). It is evident in many form such as physical discomforts, absence of peace of the mind, prolonged sadness confined thinking, anti-social behaviour, abnormal behaviour, drunkenness, excessive practice of religion and many others (Nesta 1967, Akolawole 1983). The fear, the ridicule and the cruelty that go with the patients are easily understood through emotional or psychiatry disorderliness characterized by patterns of behaviour that produce painful symptoms (Odejide 1985). The duration of this severe disease determines the mental state of a person.

Psychiatry has been known for about two hundred years ago as one of the basic disciplines of medicine and the word commonly used to describe the state is LUNACY (Lambo 1960). However, in treating psychiatric patients, psychiatry institutions are responsible for the custodial care of the Lunatics; but the colour of the wards environment where patients are kept are not adequately considered.

Colour is considered as an element of form which arouses the most universal appreciation and the one to which human beings are most sensitive (Johnson 1976). Brown et al (1973) described colour as that having an instant appeal to children as well as the adults and in fact infants are attracted by brightly coloured objects more than the dull ones. Vos (1982) summarized colour as one of the most expensive element, because of its direct and immediate qualitative effects on human emotion. The way it affects the emotion of psychiatric patients was discussed by Otto et al (1962) and Mollon (1986).

Therefore, this paper focused on the significance of the colour of hospital wards on the recovery attitudes of psychiatric patients.

## LITERATURE REVIEW

There is no agreement on the origination of a disease like psychiatry because the problem does not usually fit into groups based upon known causes. Psychiatry disorder has been attributed to humility of the brain (Jung 1907, Asuni 1972). Galen (AD200), a great physician who practiced in Rome, claimed that depression is due to an excess of black bile (melancholia) which often result into mania. He concluded that melancholia often meant insanity in its severe mood (Jung 1907, Asun 1994, Akola wole 1983).

Possession of an evil spirit as a cause of the disease was a standard belief in Sumerian Civilization (200 BC) and the Jew took over this belief from the Bablyorians. But by the time Christianity became an official religion, the belief of demonical theory of disease became an essential part Jews faith (Jung 1907, Erust 1978). After the fall of Rome, medicine in the western world was dominated by magical and religion beliefs which then marked the emergence of rational and empirical medicine in the Arab world. This, however, had little or no effect on the psychological medicine because they mostly believed in the demonical causation of diseases and that religion which arouses emotions tend to increase the pulse rate which lead to insanity (Brown et al 1973, Odejide 1985, Encyclopedia Americana 1990).

Genetic predisposition has been clearly determined to be a major contributing factor in the development of psychiatry. Yet concordance rate for mental illness among identical twins has found it to be only about fifty percent, suggesting that genetic factors are not sufficient to cause disorder (Gottesman and Sheilds 1976). The waxing and waning of psychotic symptoms that characterizes the cause of mental illness in many patients is unlikely to be due totally to genetic influences. A more complete understanding of the development and cause of psychiatry disorder has been

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Table 1: Data collected from the five randomly selected psychiatric hospitals from 1995 - 2000.

Hospitals	No. of Patients Admitted	No. of patients recovered and discharged	Colour of the wards	
			Group	Specification
1	875	821	Dull	Green
2	614	551	Dull	Blue
3	637	624	Dull	Blue
4	550	160	Bright	Neutralized Yellow
5	449	135	Bright	White

Source: Sampled Hospitals

sought in the studies of various interfamilial, interpersonal, social – cultural factor as well as biological factors (Bleuler 1911). Among many other factors that have been discussed to be attributed to psychiatry disorder are emotional conflicts (Bleuler 1911) and stress (Brown et al 1973, Awa and Uzoka 1982).

The treatment of mental health problem has been largely determined by the theories of the origin of malady (Nesta 1967). Thus during the ancient world, the treatment of psychiatry disorder varied from the use of drugs to treatment such as beating, confinement in dark rooms and general rough handling (Brown et al 1973, Awa and Uzoka 1982).

The belief in demonical possession led to the view of mental aberrations as predominantly spiritual problems or as a sign that supernatural punishment was being applied to affected patients which involves magical treatment called 'Temple Sleep' being carried out in the temple. The patients go to the priest with a motive of offering and sleeping in the temple during which God would appear to the patients and cure him. It also led to the use of confession, rituals, exorcism and torture and death as a means of treatment (Brown et al 1973, Odejide 1985).

Odejide (1985) expressed the general belief that natural illness was caused by moral laxity and physical degeneration of central nervous system. This led to more humane treatment of the psychiatry disorder patients in 18<sup>th</sup> and 19<sup>th</sup> century as employed by the psychiatrists. Psychiatrists understood that the end product of mental health problems arose from heavy metal poisoning or ecological disease and this has made its method of

treatment being categorized into (i) Psychotherapy (ii) Drug therapy (ii) shock therapy (Asun 1994) and Colour therapy (Lambo 1960).

Psychiatry patients get their emotions affected when subjected to certain types or groups of colour, thereby serving as treatment aid as recommended by the psychiatrist (Otto et al 1962, Mollon 1986). Maitland (1951) admitted that colour affects us powerfully and induces definite moods in us. Uchiakawa et al (1984) and Zekki (1985) shared the same view and agreed that colour affects physical and mental activity, this has been proved and experiments have been carried out regarding the curative value of colour upon neurotics as well.

## METHODOLOGY

The western zone was picked (out of the six zones in Nigeria) and five psychiatric hospitals out of eight in the zone were selected randomly for the study. Secondary data were collected on the number of patients admitted and those recovered and discharged from each sampled hospital for a period of five years [1995 – 2000]. The data were extracted out of the admission and discharge register of the patients in the wards. The colour of the wards where the patients were kept for treatments during the period was also noted. The colours are green, blue, neutralized yellow and white. These were grouped based on Zekki's (1985) classification. The

dull colours include green and blue while bright colours are neutralized yellow and white (Table 1).

The collected data were analyzed using Statistical Package for Social Scientists (SPSS10.0). Several percentages were obtained. The Karl Pearson chi-Squared statistic was used to measure association (relationship) between colours and the recovery attitudes of patients. The strength of the relationship was also assessed using the t-statistic.

## RESULTS AND DISCUSSIONS

3125 psychiatric patients were admitted into the five selected hospitals, out of which 73.3% (2291) of them recovered. The remaining 26.7% did not recover. Out of the 73.3% that recovered 26.3% of them were treated under green, 37.6% under blue, 5.1% under neutralized yellow and the remaining 4.3% under white colour. This showed that blue colour is the most favourable colour to the recovery attitudes of psychiatric patients. This is respectively followed by green, neutralized yellow and the white colour. The remaining 26.7% that did not recover has its percentage contribution with neutralized yellow 12.5%, followed by white 10.1%, followed by blue 2.4% and the followed by green 1.7% (Table 2). This is pictorially represented on a bar – chart in figure 1.

A consideration of the recovery attitude under the four different colours revealed that 93.8% of those kept under green, 93.9% of those kept under blue, 29.1% of those kept under neutralized yellow and 30.1% of those kept under white colour recovered from the illness while 6.2% of those kept under green, 6.1% of those kept under blue, 70.9% of those kept under neutralized yellow and 69.9% of those kept under white colour did not recover (Table 2). This is represented on the bar-chart in figure 2.

Furthermore, Table 3 revealed that there is significant association between the colour of the wards and the recovery attitudes of psychiatric patients ( $P$ -value < 0.001). The strength of the relationship, according to Table 4, is also significant ( $P$ -value < 0.001).

When the colour were grouped in two namely; the dull and bright colour, it was observed that out of 73.3% that recovered 63.9% came from dull while the remaining 9.4% came from bright colour (Table 5). Out of the remaining 26.7% that did not recover 4.2% came from dull and 22.5% from bright colour. This still supports that the dull (green and blue as discussed early) has better contribution than the bright colour to the recovery attitudes of psychiatric patients. This is represented pictorially in the on a bar-chart in figure 3.

Considering the recovery attitudes of the patients under the two groups of colour, it was observed 93.9% of those kept under dull and 29.5% of those kept under bright colour recovered. The remaining 6.1% of dull and 70.5% of bright did not recover. Observantly, it is noted that the percentage of those that recovered under dull (93.9%) is

FIGURE 1 Graphical representation of percentages of recovery attitudes of the patients with respect to hospital ward colours

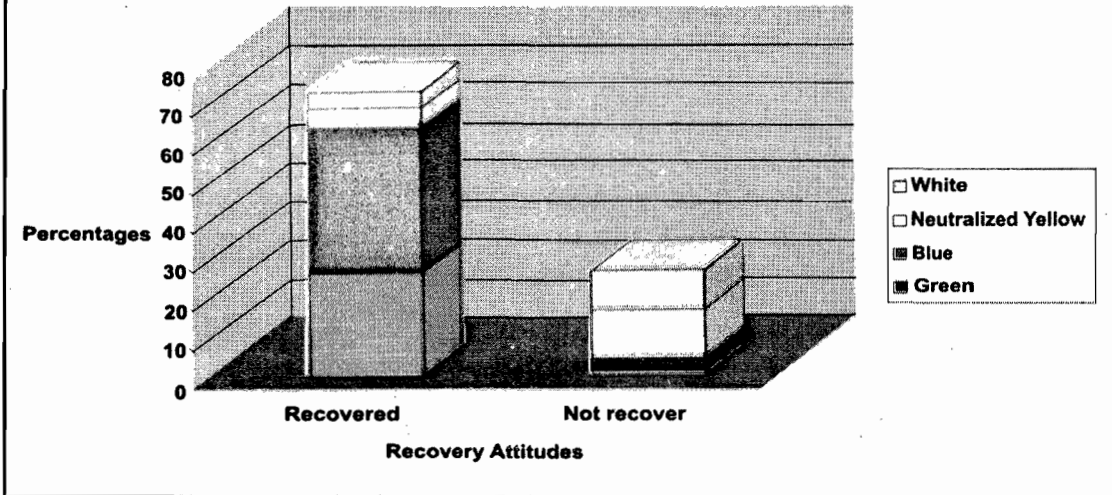
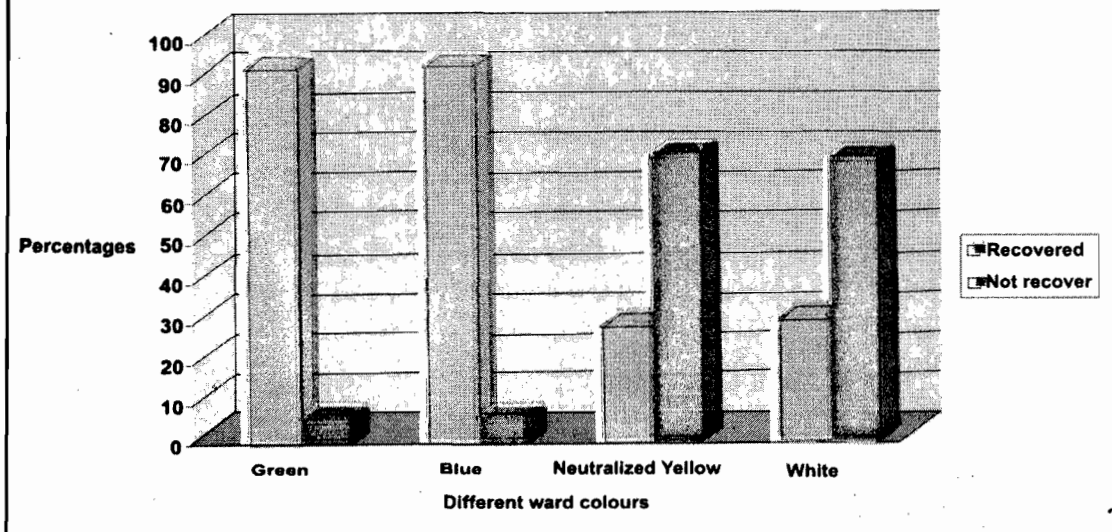


FIGURE 2: Graphical representation of percentages of the recovery attitudes of the patients under different hospital ward colours



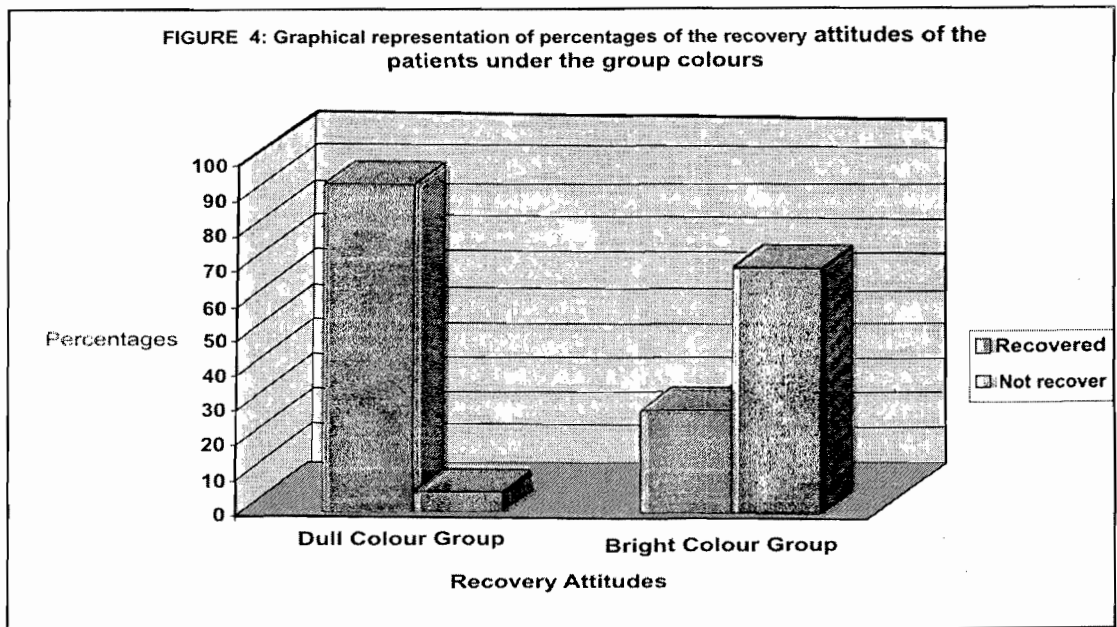
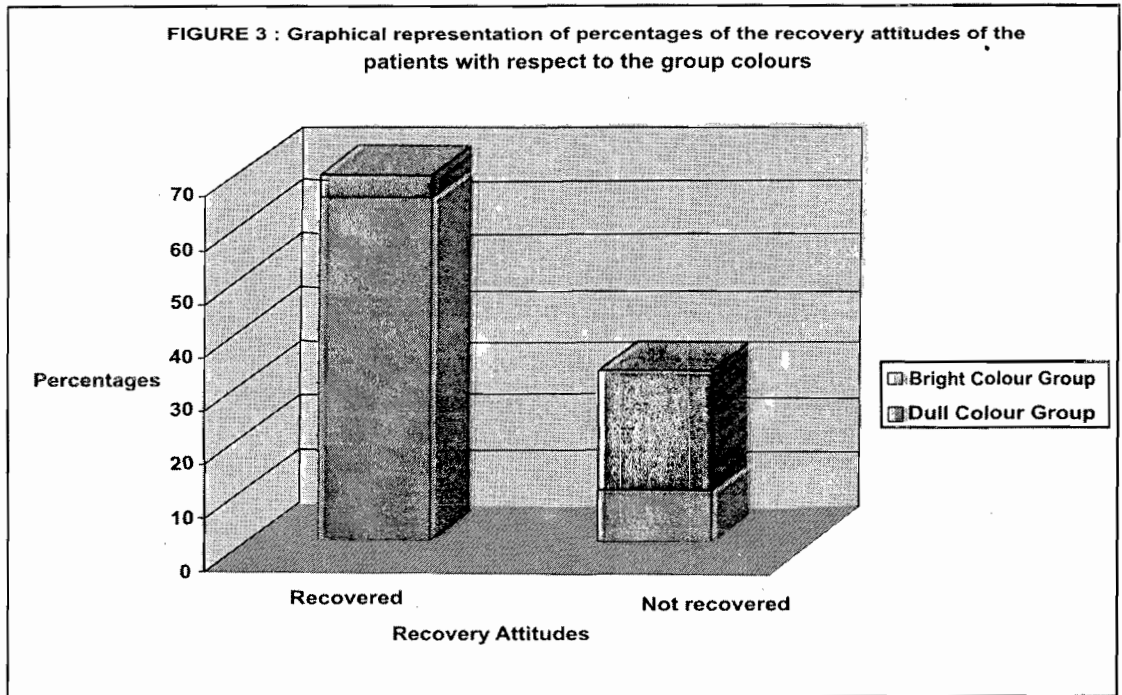


Table 2: Cross tabulation of recovery attitude and different colours

Recovery Attitudes	Outcome	Colours				Total
		Green	Blue	Neutralized Yellow	White	
Not Recovered	Number	54	76	390	314	834
	% within recovery	6.5%	9.1%	46.8%	37.6%	100%
	% within colour	6.2%	6.1%	70.9%	69.9%	26.7%
	% of Total	1.7%	2.4%	12.5%	10.1%	26.7%
Recovered	Number	821	1175	160	135	2291
	% within recovery	35.8%	51.3%	7.0%	5.9%	100%
	% within colour	93.8%	93.9%	29.1%	30.1%	73.3%
	% of Total	26.3%	37.6%	5.1%	4.3%	73.3%
Total	Number	875	1251	550	449	3125
	% within recovery	28.0%	40.0%	17.6%	14.4%	100%
	% within colour	100%	100%	100%	100%	100%
	% of Total	28.0%	40.0%	17.6%	14.4%	100%

Source: Obtained from Table 1.

Table 3: Output of Table 2 on the measure of association

Pearson squared value	chi- Degree of freedom	P-value
1438.784	3	0.0000

Source: Computer output of Table 2.

Table 4: Output of Table 2 on the extent of the relationship.

Pearson's R value	Standard Error	Approximate T	P-value
.588	0.014	40.585	0.0000

Source: Computer output of table 2.

more than three times those that recovered under bright colour (29.5%). This shows the significant impact of the usage of dull colour to paint the wards of psychiatric hospitals over bright colour. This is shown graphically on a bar-chart in figure 4.

In addition, Table 6 shows that the association between colour of the wards and recovery attitudes of patients is still significant (P-value < 0.001). The strength of the relationship, according to Table 7, is still significant (P-value < 0.001).

Consequently, the type of colour or groups of colour that is used to paint the wards of psychiatric hospitals has significant influence on the recovery attitudes of patients.

**CONCLUSION AND RECOMMENDATION**

Although the colour of the ward environment may be naturally considered to be insignificant and immaterial to the recovery attitudes of psychiatric patients, this research has

Table 5: Cross tabulation of recovery attitudes and grouped colours

Recovery Attitudes	Outcome	Groups		Total
		Dull Colour	Bright Colour	
Not Recovered	Number	130	704	834
	% within recovery	15.6%	84.4%	100%
	% within colour	6.1%	70.5%	26.7%
	% of Total	4.2%	22.5%	26.7%
Recovered	Number	1996	295	2291
	% within recovery	87.1%	12.9%	100%
	% within colour	93.9%	29.5%	73.3%
	% of Total	63.9%	9.4%	73.3%
Total	Number	2126	999	3125
	% within recovery	68.0%	32.0%	100%
	% within colour	100%	100%	100%
	% of Total	68.0%	32.0%	100%

Source: Obtained from Table 1.

Table 6: Output of Table 5 on the measure of association.

Pearson chi-squared value	Degree of freedom	P-value
1438.672	1	0.0000

Source: Computer output of Table 5.

**Table 7: Output of Table 5 on the extent of the relationship.**

Pearson's R value	Standard Error	Approximate T	P-value
.679	0.014	51.617	0.0000

Source: Computer output of Table 5.

really shown that its impact is so great. The dull colours support the recovery attitudes of psychiatric patients better

than the bright. To be more specific, under the dull group the blue colour has greater influence than the green colour and under bright group, though not encouraging, the neutralized yellow is still better than the white colour.

Therefore, the catalytic dull colour is recommended for painting the hospital wards of psychiatric patients since its usage seems to give an admirable support to the recovery attitude of psychiatric patients in the study.

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