

# What does the error “invalid model formula in ExtractVars” mean when using the “Fix” function in R?

Authored by  
**stats writer**

May 5, 2024

## RECOMMENDED CITATION

stats writer (2024). *What does the error “invalid model formula in ExtractVars” mean when using the “Fix” function in R?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=142971>

The error "invalid model formula in ExtractVars" occurs when using the "Fix" function in R and indicates that the model formula used is not valid. This means that the structure of the formula does not meet the requirements of the "Fix" function, which is used to fix or modify model formulas. This error typically arises when there are missing or incorrect variables or operators in the formula. To resolve this error, the model formula should be carefully examined and any errors or missing components should be corrected.

## Fix in R: invalid model formula in ExtractVars

One error you may encounter in R is:

**Error in terms.formula(formula, data = data) :  
invalid model formula in ExtractVars**

This error occurs when you attempt to fit a in R and incorrectly specify one or more of the variables in the formula.

This tutorial shares exactly how to fix this error in practice.

How to Reproduce the Error

Suppose we create the following data frame in R:

```
#create data frame
```

```
df <- data.frame(rating=c(88, 94, 99, 90, 76, 78, 81, 88),  
points=c(14, 17, 22, 24, 25, 22, 29, 31),
```

```
assists=c(7, 7, 6, 12, 10, 11, 17, 2),  
rebounds=c(7, 8, 8, 12, 9, 5, 11, 15))
```

```
#view data frame
```

```
df
```

```
rating points assists rebounds
```

```
1 88 14 7 7
```

```
2 94 17 7 8
```

```
3 99 22 6 8
```

```
4 90 24 12 12
```

```
5 76 25 10 9
```

```
6 78 22 11 5
```

```
7 81 29 17 11
```

```
8 88 31 2 15
```

Now suppose we attempt to use the `rpart()` function to fit a decision tree model to the data:

```
library(rpart)
```

```
#attempt to fit decision tree model to data
```

```
model <- rpart(rating ~ "points" + "assists" +  
"rebounds", data = df)
```

## **Error in terms.formula(formula, data = data) : invalid model formula in ExtractVars**

**We receive an error because we used quotations around the predictor variable names, which is not allowed in the formula.**

### **How to Fix the Error**

**The way to fix this error is to simply remove the quotations around the variable names and write the formula as follows:**

```
library(rpart)
```

```
#fit decision tree model
```

```
model <- rpart(rating ~ points + assists + rebounds,  
data = df)
```

```
#view summary of model
```

```
summary(model)Call:
```

```
rpart(formula = rating ~ points + assists + rebounds,  
data = df)
```

```
n= 8
```

```
CP nsplit rel error xerror xstd
```

**1 0.01 0 1 0 0**

**Node number 1: 8 observations**

**mean=86.75, MSE=55.1875**

**We're able to successfully fit the model without any errors because we removed the quotations from the predictor variables in the formula.**

**The following tutorials explain how to fix other common errors in R:**

ARABPSYCHOLOGY.COM