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Interest in cosmetic improvement as a marker for tanning behavior: a survey of 1602 respondents

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Abstract

Dermatologists see many patients interested in improving their physical appearance through cosmetic procedures or medical means. Dermatologists frequently counsel patients on sun protection as well, particularly those with a personal or family history of skin cancer, sun-sensitive dermatoses or those with obvious sun damage.

Our objective in this study was to identify novel markers of skin cancer risk which may aid dermatologists in targeting extra sun protection counseling for certain groups. A sixteen-question survey was distributed to subjects nineteen years of age and older in public areas of downtown Birmingham, Alabama in August and September of 2008.

Overall, about 40% of both genders reported that they were highly concerned that current sun exposure could cause skin cancer. Participants interested in at least one appearance-related questionnaire item were significantly more likely than those not interested to rate tanned skin as highly important (31.6% vs 17.5%, $p < 0.001$), and to report regret for previous sun exposure (12.5% vs 3.6%, $p < 0.001$). Subjects who thought tanned skin was important were significantly more likely to report interest in improving their appearance through cosmetic procedures and medical means.

We conclude that individuals with an interest in improving their physical appearance through cosmetic procedures or medical means may be especially in need of sun protection counseling.

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Dr. Cathcart had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

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Introduction

Skin cancer is epidemic in the United States. In 2008, over one million new cases of non-melanoma skin cancers and sixty-two thousand new cases of melanoma are expected to have been diagnosed¹. Exposure to ultraviolet (UV) light is a well-established risk factor for skin cancer that can be easily avoided through the use of protective measures such as sunscreen², seeking shade and wearing protective clothing. Despite this, many people intentionally seek unprotected UV exposure. These individuals appear to be either unaware of the risk or believe that the benefit of a tanned appearance outweighs that risk. Dermatologists frequently counsel patients about the importance of sun protection in an effort to decrease the incidence of skin cancer and sun-related skin damage. Patients with a personal or family history of skin cancer, sun-sensitive dermatoses or significant sun-related skin damage are obvious targets for more intense counseling about these risks. However, there may be groups of patients with a less obvious need for more focused sun protection counseling. Our study aims to identify interests which lead patients to seek the expertise of a dermatologist and also correlate with high-risk sun exposure behaviors. Our goal is to reveal novel markers of skin cancer risk that may be useful for targeting skin cancer prevention counseling.

Methods

A survey consisting of sixteen questions was designed to evaluate the respondent's attitude regarding his or her appearance, sun exposure, sunscreen use and interest in cosmetic procedures. The survey was submitted and approved by the University of Alabama at Birmingham institutional review board. The survey was administered in August and September of 2008. A medical student was instructed to approach all persons seated in outpatient clinic waiting areas in the University of Alabama Hospital area for participation in the survey. Subjects were told that the purpose was to gauge the public's interest and concerns about cosmetic procedures and skin cancer risks. The clinics whose waiting areas were used for survey distribution included radiology, phlebotomy, rheumatology, internal medicine, hematology/oncology, audiology, nephrology, cardiology and gastroenterology. Dermatology waiting areas were specifically excluded to avoid bias toward a more appearance-oriented population. Subjects under the age of nineteen and healthcare workers were excluded from participation. Responses were recorded by circling a number between 0 and 10 to indicate the respondent's relative interest/concern regarding the subject of the question. Demographic data including age, race and gender was also collected from each respondent.

The selection of survey questions was based on several factors. To maximize participation, we sought to create a user-friendly survey that was no more than one page in length so that it could be correctly completed in less than five minutes. Since there are various cosmetic, surgical and topical treatment options for most dermatologic problems, we asked subjects to rate their concern or interest about certain topics without mentioning a specific treatment when possible. After a small pilot survey, additional questions about wrinkles in various locations were added to maximally capture participant interests. We mixed questions about appearance with questions about sun exposure to reduce the potential that one question would influence the answer to the proceeding question.

To evaluate the respondents' attitudes regarding sun exposure, we asked the following questions: 1) How important to you is tanned skin? 2) How important to you is your sunscreen use? 3) How concerned are you that current sun exposure will cause future wrinkles? 4) How concerned are you that current sun exposure will cause future skin cancer? 5) Do you regret previous sun exposure/tanning?

To evaluate the respondent's attitudes regarding their appearance, we asked the following questions: 1) How concerned are you about wrinkles on your forehead? 2) How concerned are you about wrinkles around your eyes? 3) How important is it for you to have full lips? 4) How concerned are you about your frown lines? 5) How concerned are you about your brown spots? 6) How important to you is improving the appearance of your stretch marks? 7) How important to you is improving the appearance of your leg veins?

To evaluate the respondent's attitudes regarding interest in cosmetic procedures, we asked the following questions: 1) Would you be interested in laser hair removal of your leg hair? 2) Would you be interested in laser hair removal of your facial hair? 3) Would you be interested in laser hair removal of your armpit hair? 4) How important to you is liposuction to improve your current body shape?

An example of the survey can be found in Figure 4.

A total of 1975 surveys were collected. The surveys were evaluated for incomplete or ambiguous answers. Surveys were excluded if all questions were not answered, if the same number was circled for every question or if more than one number was circled for any questions. 1602 surveys were acceptable for use in the final analysis. Data from the surveys was recorded and analyzed using Microsoft Excel software (Microsoft Corp, Redmond, Washington),

Responses were grouped according to the labels "high", "moderate" and "low." "High" was defined as responses from 8 to 10, "moderate" was from 4 to 7 and "low" was from 0 to 3. In the discussion below, "interest" in a certain topic is defined as answering >7 for that question. Subjects answering with interest in at least one of the appearance or cosmetic procedure questions (as identified above, excluding the "tanned skin" question) were used as our "appearance-oriented" cohort and were analyzed separately. Caucasian subjects reporting an interest in tanned skin were analyzed separately as well. Data were analyzed using chi square analysis to determine statistical significance.

Results

Approximately 80% of those approached agreed to participate in the survey. 1605 of the original 1975 surveys were acceptable for analysis per criteria explained in the preceding section. The sample was 65% female and 35% male. The ethnic breakdown was 76.6% Caucasian, 19.4% African-American, and 4% other ethnicities. The mean age of respondents was 48.6 years, with a standard deviation of 16.0 years.

A breakdown of the responses for all questions is shown in Figures 1 and 2. Seventy-seven percent of all subjects rated sunscreen use as moderately or highly important. The responses pertaining to wrinkles showed that subjects were most likely to be concerned with wrinkles around the eyes (29%) and least concerned about frown lines (19%). Twenty percent of respondents were interested in laser hair removal of facial hair, making this the most popular cosmetic procedure of those included in the survey. Subjects were significantly more likely to be concerned that sun exposure would cause cancer (39%) than wrinkles (20%) ($p<0.001$).

Interest in Appearance

Sixty percent of all participants reported interest in at least one appearance-related question. Analysis of this group compared with the general population showed that they were significantly more likely to report importance for tanned skin, importance for sunscreen use, concern for sun exposure causing wrinkles, concern for sun exposure causing skin cancer

and regret for past sun exposure (Figure 3). A between-subjects *t* test (not assuming equal variances) showed that those who were appearance oriented were significantly younger (mean age = 47.4) than those who were not appearance oriented (mean age = 50.3), $t[1312.2] = 3.505$, $p < .001$.

Race

Caucasians and Hispanics were the most likely report that sunscreen use was important with 83% of both groups answering in the moderate-to-high range for this question compared with 53.2% and 56.5% of Black and Native American subjects, respectively. Comparing Caucasian and Black subjects only, a higher percentage of Black subjects reported interest or concern for almost all questions relating to appearance while Caucasians were more interested or concerned about all questions relating to sun exposure. Almost all of these differences were statistically significant, as is shown in the Table 2.

Gender

Women showed significantly more concern/interest in almost every area on the survey than men. The only exceptions were regarding tanned skin, concern about sun exposure causing future skin cancer and the importance of full lips (Table 2). For these three questions, male and female responses were not significantly different.

Age

The importance of sunscreen use increased with age, reaching a peak in 50–59 year-olds and then leveling off in the older age groups. If grouped into those thirty and above, sunscreen use was significantly more likely to be highly important in the older group compared to participants under thirty ($p < 0.001$). Interest in the appearance-oriented questions appeared to decrease with age; the average age of the appearance-oriented group was 47.4 years versus 50.3 years for non-appearance-oriented subjects. An interest in tanned skin was evenly distributed among age ranges with no significant difference among age groups.

Interest in Tanned Skin

We used only Caucasian subjects for this part of the analysis and compared subjects rating the importance of tanned skin highly with all other Caucasian subjects. The “tanned” group was significantly more interested in all aspects of their appearance and just as likely to report sunscreen use as highly important. They were no more or less likely to report regret for previous sun exposure than the group not interested in tanned skin. Results are shown in Table 3.

Discussion

Several studies have shown that an interest in tanning is motivated by interest in improving one's appearance³. In addition, education campaigns designed to target concerns about physical appearance have been successful in decreasing intentional ultraviolet exposure behaviors^{4,5,6}. A logical extension of these findings would be that persons more interested in improving other aspects of their appearance would be more likely to seek a tanned appearance. However, there have been few studies to examine this issue. Our results show that subjects reporting an interest in at least one cosmetic item are significantly more likely to rate tanned skin as important. We also found the inverse to be true; subjects rating tanned skin highly were more interested in all cosmetic items. Both groups were significantly more likely to report concern that their current sun exposure would cause future wrinkles and cancer. The coexisting concerns of these subjects about the negative effects of sun exposure suggest ambivalence about achieving a tanned appearance. Despite their apparent

knowledge about the dangers of excess sun exposure, they still interpret tanned skin as desirable. While regret for previous exposure could indicate a history of high-risk behavior in the appearance-oriented group, their current tanning practices were not obtained in our survey. It is possible that these subjects are using sunless tanners as a safe alternative to tanning. Research on the use of these products, however, indicates that the use of sunless tanners is associated with more rather than less excess UV exposure⁷. The increased concern for skin cancer as a result of current sun exposure in these groups contrasts with findings from another study in which subjects reporting tanning behavior were less likely to be aware of skin cancer risk⁸.

Efforts at public education about reducing skin cancer risk by the American Cancer Society, the American Academy of Dermatology and various producers of sunscreen-containing cosmetic products have increased in the past decade as the incidence of skin cancer has escalated. These public education campaigns may have influenced our population as 39% of general respondents and 47% of the appearance-oriented group report high concern about developing skin cancer as a result of current sun exposure. 77% of those surveyed reported that sunscreen use was at least moderately important. The reported prevalence of sunscreen use in the general population ranges from 7–90% in the literature⁹. Increased concern about skin cancer and sunscreen use in the appearance-oriented group could be a reflection of better education and understanding about the relation between sun and skin damage or an overall increase in awareness about skin care.

We were interested to find that subjects highly interested in tanned skin were evenly distributed among age ranges. While there have been few studies on the tanning behavior of adults over fifty, those available have shown that tanning is inversely related to age^{10,11}. The importance of sunscreen use, however, did show differences based on age and was significantly more likely to be highly important to subjects over 30. This finding that the importance of sunscreen use increases with age while tanning interest remains constant could represent an opportunity for education of older patients regarding the myth of achieving a “safe tan” with sunscreen.

Gender differences in sun exposure beliefs and attitudes revealed several trends. While women report higher importance for sunscreen use than men (50% vs 40%), about 40% of both genders reported that they were highly concerned that current sun exposure would cause future skin cancer. In addition, men and women were equally likely to rate tanned skin as highly important. While men are aware that they are at risk for skin cancer, they may be less likely to use sunscreen and just as likely as women to seek a tanned appearance.

Our study also shows that a significant portion of the population has cosmetic concerns. Overall, 60% of the survey participants reported concern for at least one cosmetic procedure or issue. Patients presenting to a dermatologist may have underlying cosmetic concerns that warrant our attention although they may not be the primary reason for the visit. This population also represents a group that may be especially at risk of high-risk sun exposure and in need of proper sunscreen and sun protection counseling while in our office.

Limitations of our study include that it was conducted in one location and relies on self-reporting of behavior. Since the study was conducted in the summer months, we cannot be certain that self-reporting of behaviors was not affected by the season. It is possible that subjects are more likely to report the importance of sunscreen use in the summer months than they would be at other times of year. In addition, our survey asked about the importance of tanning without obtaining information about the behavior itself in an attempt to maximally capture subject interest. More information about actual tanning practices in appearance-oriented subjects could be helpful in future studies.

Sampling bias could be another limitation of our study. The surveys were distributed in waiting areas of a medical clinic. Therefore the participants in this study were likely to have visited a doctor or accompanied someone to an appointment within close proximity to the time that they completed this survey. This could select for an older, more health-conscious subset of the population who may be more likely to be aware of the benefits of sunscreen and the risks of sun exposure.

Conclusions

Our research shows that subjects reporting interest in their appearance are more likely to report tanned skin as highly important to them while also reporting an increased concern about the negative effects of sun exposure. The success of appearance-based educational campaigns for the prevention of excess sun exposure has been well-documented in the literature^{4,5,6}. These campaigns are likely to be most successful in appearance-oriented patients. It is important when talking to these patients to reinforce that a tanned appearance is a sign of skin damage rather than a sign of beauty. An explanation of the difference between chronological aging and photoaging can be used to emphasize the negative effects of prolonged sun exposure. In addition, patients should also be informed that many cosmetic procedures aiming to improve the appearance of sun-damaged skin are less effective if they care continuing to tan. Sunless tanners that include an SPF are an especially effective product to recommend for these patients.

Female patients and those over thirty are more likely to use sunscreen. Education about proper sunscreen application and other methods of sun protection may be more effective with these patients after establishing that they already are regular sunscreen users. Male patients are less likely to use sunscreen although their concern that current sun exposure will cause skin cancer is the same as that for women. Therefore, linking sunscreen use with protection from skin cancer may be a particularly effective approach in male patients.

Our results show that certain characteristics are predictive of a patient's beliefs about sun exposure and protection. Further knowledge on this subject can aid us as we attempt to educate our patients about skin cancer prevention.

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References

1. American Cancer Society. Cancer fact and figures 2008. Retrieved from <http://www.cancer.org/downloads/STT/2008CAFFfinalsecured.pdf>
2. Fourtanier A, Bernerd F, Bouillon C, Marrot L, Moyal D, Seité S. Protection of skin biological targets by different types of sunscreens. *Photodermatol Photoimmunol Photomed*. 2006 Feb; 22(1): 22–32. [PubMed: 16436178]
3. Leary MR, Saltzman JL, Georgsen J. Appearance Motivation, Obsessive-compulsive Tendencies and Excessive Suntanning in a Community Sample. *J Health Psychol*. 1997; 2:493–499.
4. Olson AL, Gaffney CA, Starr P, Dietrich AJ. The impact of an appearance-based educational intervention on adolescent intention to use sunscreen. *Health Educ Res*. 2008 Oct; 23(5):763–9. Epub 2007 Nov 26. [PubMed: 18039727]

5. Mahler HI, Kulik JA, Harrell J, Correa A, Gibbons FX, Gerrard M. Effects of UV photographs, photoaging information, and use of sunless tanning lotion on sun protection behaviors. *Arch Dermatol*. 2005 Mar; 141(3):373–80. [PubMed: 15781679]
6. Hillhouse J, Turriss R, Stapleton J, Robinson J. A randomized controlled trial of an appearance-focused intervention to prevent skin cancer. *Cancer*. 2008 Dec 1; 113(11):3257–66. [PubMed: 18937268]
7. Brooks K, Brooks D, Dajani Z, Swetter S, Powers E, Pagoto S, Geller AC. Use of artificial tanning products among young adults. *J Am Acad Dermatol*. 2006; 54:1060–6. [PubMed: 16713463]
8. Lazovich D, Forster J, Sorensen G, et al. Characteristics associated with use or intention to use indoor tanning among adolescents. *Arch Pediatr Adolesc Med*. 2004; 158:918–24. [PubMed: 15351760]
9. Kasparian NA, McLoone JK, Meiser B. Skin cancer-related prevention and screening behaviors: a review of the literature. *J Behav Med*. 2009 Jun 12. [Epub ahead of print].
10. Heckman CJ, Coups EJ, Manne SL. Prevalence and correlates of indoor tanning among US adults. *J Am Acad Dermatol*. 2008; 58:769–80. [PubMed: 18328594]
11. Stryker JE, Yaroch AL, Moser RP, Atienza A, Glanz K. Prevalence of sunless tanning product use and related behaviors among adults in the United States: results from a national survey. *J Am Acad Dermatol*. 2007; 56:387–90. [PubMed: 17097362]

Figure 1.
Responses to questions 1–8

Figure 2.
Responses to questions 9–16

Figure 3.

Percentage of subjects reporting high interest/concern for sun exposure questions in the “appearance-oriented” group compared with all subjects. Note: all comparisons are significant, $p < 0.001$, using chi squares analysis with one degree of freedom.

Age: _____ Gender: M ___ F ___

Race: Caucasian ___ Black ___ Native American ___ Hispanic ___ Other ___

PLEASE CIRCLE a number on each scale indicating how important/concerning the following items are to you at this time in your life. "1" represents "not important/not applicable" and "10" indicates "extremely important/concerning".

1. How important to you is tanned skin?

0	1	2	3	4	5	6	7	8	9	10
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2. How important to you is your sunscreen use?

0	1	2	3	4	5	6	7	8	9	10
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3. Are you concerned about you wrinkles on your forehead?

0	1	2	3	4	5	6	7	8	9	10
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4. Are you concerned about your wrinkles around your eyes?

0	1	2	3	4	5	6	7	8	9	10
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5. Is it important for you to have full lips?

0	1	2	3	4	5	6	7	8	9	10
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6. Are you concerned about your frown lines?

0	1	2	3	4	5	6	7	8	9	10
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7. Are you concerned about your brown spots?

0	1	2	3	4	5	6	7	8	9	10
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8. Would you be interested in laser removal of your facial hair?

0	1	2	3	4	5	6	7	8	9	10
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9. Would you be interested in laser removal of your leg hair?

0	1	2	3	4	5	6	7	8	9	10
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10. Would you be interested in laser removal of your armpit hair?

0	1	2	3	4	5	6	7	8	9	10
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11. How important to you is improving the appearance of your leg veins?

0	1	2	3	4	5	6	7	8	9	10
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12. How important to you is improving the appearance of your stretch marks?

0	1	2	3	4	5	6	7	8	9	10
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13. How important to you is liposuction to improve your current body shape?

0	1	2	3	4	5	6	7	8	9	10
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14. Are you concerned that your current sun exposure will cause wrinkles in the future?

0	1	2	3	4	5	6	7	8	9	10
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15. Are you concerned that your current sun exposure will cause skin cancer in the future?

0	1	2	3	4	5	6	7	8	9	10
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16. Do you regret excessive sun tanning/sun exposure in the past?

0	1	2	3	4	5	6	7	8	9	10
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Figure 4.

Table 1

High interest for each question by race, see Figure 15 for entire question. LR=Likelihood Ratio found by chi squares analysis with one degree of freedom.

	Caucasian (n=1227)	Black (n=310)	LR	p-value
Tanned Skin	8.39%	10%	0.77	0.378
Sunscreen Use	51.02%	29.68%	46.593	<0.001
Forehead Wrinkles	45.48%	26.45%	3.021	0.0821
Wrinkles Around Eyes	28.47%	37.74%	12.139	<0.001
Full Lips	6.11%	19.35%	45.336	<0.001
Frown Lines	16.30%	29.35%	25.3	<0.001
Brown Spots	28.93%	30.97%	166.086	<0.001
Laser Hair Removal: Face	17.52%	27.74%	15.378	<0.001
Laser Hair Removal: Legs	11.49%	12.58%	0.28	0.5969
Laser Hair Removal: Armpit	9.29%	19.35%	22.198	<0.001
Leg Veins	18.91%	25.81%	6.964	0.0083
Stretch Marks	12.63%	41.61%	119.202	<0.001
Liposuction	12.88%	29.68%	45.535	<0.001
Sun Exp/Future Wrinkles	21.43%	15.16%	6.376	0.0115
Sun Exp/Future Skin Cancer	42.95%	23.87%	39.875	<0.001
Regret For Past Tanning	30.40%	7.10%	85.765	<0.001

Table 2

High Interest for each question by gender; see Figure 15 for entire questions. LR=Likelihood Ratio found by chi squares analysis with one degree of freedom.

	Male (n=560)	Female (n=1042)	LR	p-value
Tanned Skin	7.32%	9.69%	2.607	0.1064
Sunscreen Use	40.18%	50.00%	14.189	<0.001
Forehead Wrinkles	9.82%	29.75%	48.737	<0.001
Wrinkles Around Eyes	13.21%	38.00%	117.67	<0.001
Full Lips	7.14%	9.60%	2.832	0.0923
Frown Lines	7.14%	24.86%	85.342	<0.001
Brown Spots	18.93%	34.74%	46.07	<0.001
Laser Hair Removal: Face	4.46%	27.74%	99.818	<0.001
Laser Hair Removal: Legs	0.71%	18.23%	145.373	<0.001
Laser Hair Removal: Armpit	0.89%	17.56%	133.066	<0.001
Leg Veins	5.00%	28.89%	151.745	<0.001
Stretch Marks	3.93%	26.87%	152.549	<0.001
Liposuction	4.11%	22.65%	110.728	<0.001
Sun Exp/Future Wrinkles	10.71%	25.34%	52.326	<0.001
Sun Exp/Future Skin Cancer	38.93%	39.44%	0.04	0.8405
Regret For Past Tanning	21.61%	28.02%	7.985	0.0047

Table 3

Comparison of Caucasians rating tanned skin as highly important (“tanned”) and Caucasians not rating tanned skin important (“not tanned”).

	Tanned (n=103)	Not Tanned (n=1124)	LR	p-value
Sunscreen Use	46.60%	51.42%	0.878	0.3487
Forehead Wrinkles	20.11%	39.81%	18.849	<0.001
Wrinkles Around Eyes	25.53%	48.54%	22.698	<0.001
Full Lips	4.80%	20.39%	27.148	<0.001
Frown Lines	14.32%	37.86%	38.324	<0.001
Brown Spots	27.31%	46.60%	15.767	<0.001
Laser Hair Removal: Face	16.10%	33.00%	15.966	<0.001
Laser Hair Removal: Legs	10.68%	20.39%	7.457	0.0063
Laser Hair Removal: Armpit	8.63%	16.50%	5.879	0.0153
Leg Veins	17.26%	36.90%	20.241	<0.001
Stretch Marks	11.30%	27.18%	17.457	<0.001
Liposuction	11.83%	24.27%	10.946	<0.001
Sun Exp/Future Wrinkles	19.93%	37.86%	15.892	<0.001
Sun Exp/Future Skin Cancer	41.81%	55.34%	6.961	0.0083
Regret For Past Tanning	30.16%	33.01%	0.357	0.5501